Established 1835.

The Mining Journal,

RAILWAY AND COMMERCIAL GAZETTE:

Illustrated Record of Mining, Metallurgical, Railway, Financial, Industrial, And Engineering Progress.

[*The* MINING JOURNAL *is Registered at the General Post Office as a Newspaper and for Transmission Abroad.*]

No. 3164—VOL. LXVI. LONDON, SATURDAY, APRIL 11, 1896. PRICE..... SIXPENCE. BY POST, £1 1s. PER ANNUM.

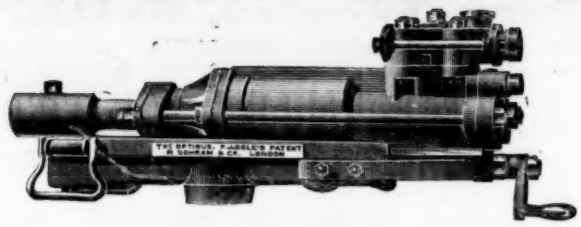
For Index to Advertisements see Page 454.

For Literary Contents see Page 466.

INDEX TO ADVERTISEMENTS.

(THOSE WITHOUT NUMBER OF PAGE DO NOT APPEAR IN THIS ISSUE.)

REVOLUTION IN ROCK DRILLING



"OPTIMUS" COMPOUND ROCK DRILL.

(P. J. OGLE'S PATENT.)

Consumes 40 per cent. less Compressed Air than any other Drill at the same time giving the most effectual results.

AIR COMPRESSORS,

WITH COMPOUND AIR AND STEAM CYLINDERS,

Fitted with SCHRAM'S Inlet and Outlet Valves giving the greatest efficiency.

"SCHRAM'S" IMPROVED ROCK DRILLS,

SUPPLIED TO THE INDIAN, COLONIAL, AND OTHER GOVERNMENTS.

2500 IN USE IN ALL PARTS OF THE WORLD.

Hand-Power Diamond Prospecting Drills.

ESTIMATES AND FULL PARTICULARS ON APPLICATION.

RICHARD SCHRAM & CO., 17a, Great George St., Westminster, S.W.

TELEGRAMS "SCHRAM, LONDON," A1, A.B.C. and The Engineering Telegraph Codes Used.

FRIED. KRUPP GRUSONWERK,

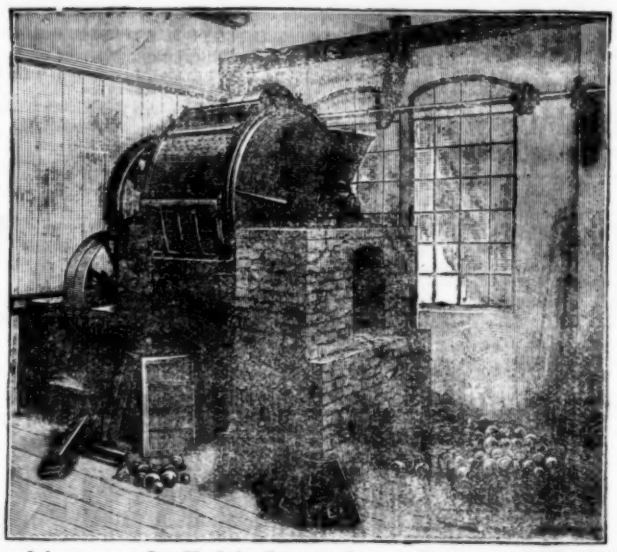
MANUFACTURERS OF

1. Chilled Cast Iron, Cast Steel and Malleable Iron Articles. MAGDEBURG-BUCKAU.
2. Machinery and Apparatus for treatment of Ore of all description.

GOLD EXTRACTION MACHINERY.

(Laszlo' Amalgamators giving 20 to 40 per cent. more Gold than others).

SILVER EXTRACTION MACHINERY.



STAMP BATTERIES.

Patent Ball Mills.

(Dry Crushers).

ORE-CONCENTRATION

DRY SEPARATOR

OF

PAPE-HENNEBERG.

3. Disintegrating Machinery of all kinds, such as Patent Ball Mills for Ores, Quartz, Cement, Basic Slag Grinding, &c. Excelsior Mills for Food Products, also for Tanneries, Chemical Factories, Sugar Factories, &c. Stone Breakers, Roller Mills, Crushers, &c., &c., Runners.
4. Whole installation for Cement, Porcelain, Emery, Manure, Gypsum, Bone, & Ore Mills.

HYDRAULIC PRESSES. LEAD PIPE PRESSES. COMBINED COFFEE GRINDING AND CLEANSING MILLS. ROLLS FOR ALL METALS. CRANES. RAILWAY MATERIAL.

CATALOGUES IN ALL LANGUAGES.

SOLE AGENT: **W. STAMM, 3, EAST INDIA AVENUE, E.C.**

"CHAMPION" ROCK DRILLS

Have all the latest improvements resulting from 18 years' practical experience in constant work.

Unrivalled for efficiency and durability in Sinking Shafts, Driving Levels & Tunnels.

THE CHAMPION ROCK-BORER AND AIR COMPRESSOR CO.

SOLE PROPRIETORS AND MANUFACTURERS,

E. P. and H. P. VACHER,

MAKERS OF ROCK DRILLS, AIR COMPRESSORS,

TURBINES, WATER WHEELS, WATER MOTORS, RAMS

AND OTHER

MINING MACHINERY.

63, Queen Victoria Street,

LONDON, E.C.

Telegraphic Address: "TURNSCREW, LONDON."

TURBINES.

FACTS!

Little Giant Turbine.

Unlike other Turbines, with from 12 to 24 water inlets to supply it with water, our LITTLE GIANT Wheel has one Vertical Gate only, so that no waste of water, power, and no stoppages takes place owing to small rubbish lodging in the gates as in other types of turbines.

FULL PARTICULARS SENT FREE.

S. HOWES, HYDRAULIC ENGINEER.

64, MARK LANE, LONDON,

AND AT SILVER CREEK, N.Y., U.S.A. E.C.

THE WEST BRITON AND CORNWALL ADVERTISER.

The best Family Newspaper for Cornwall and the West of England generally.

MONDAY AFTERNOON, 4 Pages, One Halfpenny.

THURSDAY AFTERNOON, 8 Pages, 56 Columns, One Penny.

The Largest and Most Influential Journal of Cornwall.

The Best Advertising Medium in the West of England.

The Largest Circulation of any Cornish Newspaper.

The "WEST BRITON" contains more reliable information respecting Cornish Mines than any other Newspaper

HEARD and SONS, Publishers, Truro.

For PURE ALUMINIUM

98 to 99½ per cent. (98 per cent. minimum guaranteed) in

INGOTS, STICKS, & ROLLING SLABS;

ALSO FOR

SHEETS, &c., AND FERRO-ALUMINIUM.

ALUMINIUM.

APPLY TO

HENRY R. MERTON & CO.,

2, Metal Exchange Buildings, Leadenhall Avenue,

LONDON, E.C.

AGENTS FOR THE BRITISH ALUMINIUM COMPANY, LIMITED.

NEW PATENTS.

LIST of APPLICATIONS for New Patents relating to Mining Metallurgical, Engineering, Railway and kindred matters, specially compiled from official sources for the "Mining Journal" by Messrs Rayner and Company, Patent Agents, 27, Chancery Lane, London, W.C., who will forward all information regarding them free on application.

6354 **Thomas York**, 104, Colmore Row, Birmingham.—Certain new and useful improvements in steam boiler furnaces.—March 23.
6472 **Henry Robert Angel**, 7, St. Helen's Place, London.—Improvements in the treatments of refractory or other ores.—March 24.
6372 **John Imray**, 28, Southampton Buildings, Chancery Lane, London.—Apparatus for separating volatile metals from their alloys.—March 25.
6381 **Alfred William Davies**, 48, Putney Bridge Road, Wandsworth.—Metallic garden edging and border.—March 25.
6436 **William Henry Griffiths**, 26, Castle Street, Liverpool.—Improvements in steam engines.—March 26.
6464 **Alexander Karyscheff** and **Sergie Demmini**, 28, Southampton Buildings, Chancery Lane, London.—A new pyrochemical process and apparatus for the direct production of iron and other metals from their ores.—March 26.
6533 **Thomas Parker** and **Sir John Benjamin Stone Knight**, 6, Bream's Buildings, Chancery Lane, London.—Improvements in apparatus for excavating, mining, quarrying, and other similar purposes.—March 26.
6704 **Wilhelm Otto Axel Lowe** and **Daniel Lister**, 6, Lord Street, Liverpool.—Improvements in or applicable to boiler furnaces, or other furnaces or flues.—March 27.
6559 **Thomas Rowland Jordan**.—Improvements in bottle.—March 25.
6560 **Henry Landgraf**.—Improvements in knife sharpener.—March 25.
6561 **Olawde Vernon Zenn**.—Improvements in can opener.—March 25.
6566 **George Rogers**, the Leo Game Cabinet.—March 25.
6570 **Paul Hardegen**.—Improvements in microphones.—March 25.
6596 **Elbert V. D. Rousseau**.—Improvements in puzzles.—March 25.
6606 **Thomas Gill Smith**.—An electric cyclometer.—March 26.
6609 **Frederick Charles Freeman**.—Metallic trellis.—March 26.
6611 **Charles Percy Watson**.—An oven plate lifter.—March 26.
6612 **Samuel Alcock**.—Improved fishing reel.—March 26.
6613 **Josef Granz**.—Improvements in T squares.—March 26.
6623 **John Greenwood**.—Improvements in loom pickers.—March 26.

SPECIFICATIONS PUBLISHED.

4393, Wynne, rock drilling machines, March 28, 1895; 6040, Wollaston, steam engines, March 28, 1895; 8712, Caddy and Co. (Limited) and Edwards, furnaces, March 19; 9230, Schmidt, steam boilers, March 28, 1895; 9331, Moore, steam traps, March 28, 1895; 18270, Montupet, steam boilers, March 28, 1896; 1043, Pitt, steam engines, March 28, 1896; 1442, Scott, boiler feeder, March 28, 1896; 1493, Lake, engine valves, March 28, 1896; 1863, Bergermeister, rotary engines.

The above specifications published may be had of Messrs. Rayner and Co., 37, Chancery Lane, London, at 10d. each, including postage.

THE Orient Liner, *Austral*, left Adelaide on Wednesday with £198,000 specie for London.

JOINT-STOCK COMPANIES.

NEW REGISTRATIONS.

THE following are among the joint-stock companies registered at Somerset House since our last notice:—

Mineral Oils Corporation (Limited).—Registered March 27 by Richard Flint and Co., 42, Fleet Street, E.C., with a capital of £20,000 in £5 shares. Objects: To adopt and carry into effect three several agreements—the first, made March 23, between Dr. P. Deerkoritz, of Devonshire Chambers, London, of the one part, and C. S. Hunting, on behalf of this company, of the other part; the second made between C. S. Hunting, as above, of the one part and James S. McClurg, of 13, Beulah Grove, West Croydon, of the other part; the third, expressed to be made between Hunting and Son, of Newcastle, of the one part and William Joseph Eltringham, of Newcastle, on behalf of this company, of the other part; and, generally, to carry on the businesses of importers and storers of and dealers in mineral, animal, or vegetable oils, either crude or semi-crude, or refined or semi-refined, and to render the same marketable, also as general merchants, carriers by land or water, wharfingers, warehousemen; as ship and barge owners; to acquire and turn to account any patents, patent rights, &c.; to acquire, open and work oil wells, and to construct pipe lines; to construct, maintain, and work rail and tram roads; as coopers, &c., in all or any of their respective branches. The first directors—of whom there shall not be less than five—are Charles Hunting, Charles S. Hunting, James Duffield, and Edward A. Gibson. Qualification, £2500. Remuneration, £300 per annum, divisible.

Donegal Granite Quarry (Limited).—Registered March 30 by Mayo, 10, Drapers' Gardens, E.C., with a capital of £50,000, divided into 50,000 shares of £1 each. Object: To acquire, by purchase, lease, or otherwise, settle, improve, and colonise any farms, lands, estates, &c., in Ireland or elsewhere; to clear, drain, plant, or build thereon; as miners and smelters, quarry owners, timber merchants, stock raiser and dealers, provision and produce dealers; to promote immigration into Ireland, and for such purpose to advance money; as general merchants; to construct, maintain, and work rail and tram roads, canals, reservoirs, aqueducts, telegraph and telephone systems; as hotel, boarding-house, and restaurant proprietors; to build dwelling-houses, shops, stores, gas, water, and electric works; as quarriers for and dealers in slate, marble, granite; as shipowners, company promoters, stock and share dealers, &c. The first directors—of whom there shall be not less than three nor more than seven—are to be elected by the signatories. Qualification, £250. Remuneration, Chairman £200; ordinary directors, £150 per annum each, with a percentage of the profits, divisible.

Black Swan Gold Mine (Limited).—Registered March 30 by Williams and Neville, Winchester House, E.C., with a capital of £40,000 in 5s. shares. Object: To adopt an agreement, made between the Black Swan Gold Mine (Limited) (in voluntary liquidation), of the first part, J. W. Woodthorpe (the liquidator of the said company) of the second part, and H. J. Dixon, for the present company, of the third part, for the acquisition of the undertaking of the said old company, and to carry on the business of a mining and smelting company in all its branches, in West Australia or elsewhere. The directors are to be elected by the signatories. Qualification, £75. Remuneration: Chairman, £2 2s.; ordinary directors, £1 11s. 6d. for each board attendance, and a percentage of the profits, divisible.

The secretary of the ISLE OF MAN MINING COMPANY sold on Wednesday 100 tons of the company's ore at £8 13s. per ton.

CONTRACTS OPEN:

FOR MINE, QUARRY, RAILWAY, AND ENGINEERING WORK, STORES, &c.

**** We shall be obliged by being promptly placed in possession of particulars regarding contracts open for competition, and of the results of successful tenders. In the latter case contract prices should be given.*

The date given is that by which tenders must be delivered, in nearly all cases further information can be obtained on application at the addresses given. In applying for such the name of "The Mining Journal" should be mentioned as the original source of the information, concerning which further particulars are required.

HOME CONTRACTS.

Sinking Shafts. April 15 (*Hylton*).—For the sinking of two shafts and the construction of a tunnel beneath the River Wear at Hylton, for the Sunderland and South Shields Water Company. Drawings and specifications may be inspected, and forms of tender may be obtained, on payment of £2 2s. (returnable if a bona tender be made), at the office of the company, 15, Fawcett Street, Sunderland, and at the office of Messrs. T. and C. Hawksley, civil engineers, 30, Great George-street, Westminster, London; and tenders must be delivered at the office of the company, Sunderland, at or before 10 a.m. on 15th inst. Mr. J. W. Sutherland, Secretary.

Coal and Shale. April 16 (*Barrhead, Scotland*).—For supplies of first-second, and third class cannels, also splint coal and shale for one or two years as may be agreed upon, commencing May 15, for the Barrhead Gaslight Company (Limited). The coals are to be the best of their respective kind, well screened, and free from dross. Tenders, to include carriage to Barrhead, must be lodged with Mr. J. W. Carmichael, manager, by 15th inst.

Coal. April 13 (*Coatbridge, Scotland*).—For next season's supply of cannel, splint, or heading coal, for the Coatbridge Gas Company, Incorporated. Sealed tenders to Mr. Thomas Wilson, secretary and manager, Gasworks, Coatbridge, by 13th inst., and endorsed "Tender for Coal."

Railway Works. April 21 (*Newbridge and Crumlin*).—For works in connection with the construction of an additional line of rails between Newbridge and Crumlin, including the excavation of earthwork near Aberbeg, for the Great Western Railway Company. Plans and specification may be seen and forms of tender and bills of quantities obtained at the office of the engineer at Newport station between 10 a.m. and 4 p.m. Tenders addressed to Mr. G. K. Mills, secretary, Paddington Station, London, and marked outside "Tender for Works between Newbridge and Crumlin, &c.," will be received on or before 21st inst.

Railway Construction. April 21 (*Usk, Mon.*).—For the construction of the remaining portion of the East Usk Railway, near Newport, a length of about 2¼ miles, for the Great Western Railway Company. Plans and specifications may be seen and forms of tender and bills of quantities obtained at the office of the engineer at Newport Station, between 10 a.m. and 4 p.m. Tenders addressed to Mr. G. K. Mills, secretary, Paddington Station, London, and marked outside "Tender for East Usk Railway," will be received on or before April 21.

Fuel. April 20 (*Horfield*).—Tenders for the supply of fuel wood to the 3rd Battalion Gloucester Regiment during their training at Horfield, commencing about June 1, will be received at the Headquarter Office, Devonport, until noon on 20th inst. Forms of tender and any further particulars can be obtained on application to the Assistant-Adjutant General B. Headquarter Office, Devonport, or to the Officer commanding the corps at Horfield.

MINING IN THE STATE OF CHIAPAS, MEXICO.*

(*Concluded from page* 435.)

Providencia Ore Channel or Courses.

PERHAPS the most interesting part of the mine is that on the Providencia side of the creek, separated from Santa Fé by about 200 to 250 feet. It is here that evidences of upheaval fissuring and overturning of rocks are plainly visible. At the mouth of the Providencia Mine a small mass of rich ore was cut, and in no other part of the mine has gold been found in so visible a state. To the south-west of this ore body another rich vein-like body, called the Old Providencia, has been opened up, running in a south-westerly direction for 400 feet. Above the adit level it rises for above 100 feet, and is worked partly as an open cut and partly by overhand stopes from below. It runs from 20 feet to a few inches in width, being wider near the surface than at the lower level, where it is pinched. Towards the surface it is overlaid by a rising ridge of about 30 to 80 feet, composed of about 8 feet of barren white wollastonite immediately overlying the cap of the deposit, with decomposed sandy porphyritic rocks above, all of which have been stripped and cleared away; the dip is about 80° to the westward. This deposit has been traced to the outer contact of the wollastonite by the level below, and where it ends in a trap rock; it may, however, nearer the surface, rise with the hill beyond as an inclined chute or pipe of ore, ending in the Santa Maria outcrop at an elevation of about 120 feet above its present surface level, and 300 feet beyond.

San Juan Ore Body.

To the eastward of the Providencia Mine a strong looking ore body has lately been struck in the San Juan crosscut of the Providencia Mine, which has every appearance of being one and the same ore channel as the mouth of the Providencia Mine and Old Providencia ore bodies are formed in. The ore is much disturbed and irregular here, but dips to the south-east and east, with a curve to the south, south-east, and south-west. Connecting these three ore bodies as one and the same channel of ore, they form a segment of an ellipse, with its convex side to the northward, as is the case in the Santa Fé and Taylor No. 3 ore bodies, and with a dip always away from its foci. In depth the San Juan ore body would seem to have some connection with Santa Fé; in close proximity to it an extensive cavernous, or rather vein-like crevice exists, the water in which finds its way under the river (Pine Creek) and shoots out through bore holes in the face of a drift that was being driven from the bottom of the Santa Fé shaft, 90 feet below in vertical measurement and 250 feet in horizontal. This crevice for some 50 or 60 feet forms on one side of the ore course; some fine copper float stones being found in it led to the discovery of this ore body. Some 10,000 gallons per hour are being pumped out, which, however, barely lowers the water 1 foot per week. The water issues from the bore holes at a temperature of 5° above that in any other part of the mine, and may thus point to the proximity of an ore body below. This crevice has been now pumped out to 60 feet on the incline that dips toward Santa Fé. The limestone in the vicinity of the crevice is heaved and broken up, forming, comparatively speaking, great saddles, with crevices and fissures comformable to the folds, which again are full of blowholes or vents. The limestone itself is in a semi-crystallised state near the disturbance, and even outside the ore course proper is impregnated with bornite and copper pyrites. The ore body here seems to be a little below the ore body at the entrance of the Providencia Mine, and this again below the general level of the Old Providencia, looking almost like an elliptical shaped channel of ore, which gradually ascends out of the earth; while at a lower depth it may have a connection with Santa Fé ore bodies, and eventually prove to have been the source of the origin of these ore bodies.

Geological Summary.

The general appearance of the mine is that of a great volcanic upheaval, speaking in a very local and limited sense. The whole of the limestone deposit seems to have been upheaved by an intrusive rock from below, cracking and fissuring it along curved planes more or less symmetrical to each other, and not unlikely with those of the igneous rocks below. At the same time, under great heat, pressure, and vapours charged with silica, the limestone would seem to have been metamorphosed into its present state. Along the planes of fracture, the limestone, more or less in a plastic state, caused by the sudden release from pressure, burst forth, and partially or completely filled up the open crevices at the moment of their formation, and enclosed the heavy sublimates of the metals forced up at the same moment of time through them, which, since segregating out, may have given to it its present appearance. It is not asserted that such was the case, but simply that such is it aspect to an ordinary observer.

Mineralogical Summary.

The wollastonite is of a pure white, massive variety, though found in shades of pink or flesh colour, yellow, and, where decomposed and rotten, of a deep chocolate colour. In the ore zones it is always more or less associated with garnet, and near the greatest disturbances is in a semi-crystallised state—or semi-crystallised magma more clearly explains its appearance—and often found with a coarse stellular structure. On the inner contact it changes to a friable quartz or a hard agatey stone. On the outer contact it is associated with garnet. Both aragonite and Iceland spar are found in it in small quantities, especially the latter. The bulk of the mineral is bornite, associated with copper and iron pyrites, but free, comparatively speaking, of the latter mineral, grey copper ore, bornite, chrysocolla, azurite, malachite, and galena. Of these, seldom any in large quantity, save galena, and that only so on the outer zone. Gold is found more or less in a free state, both in a coarse and very fine state of division. It is not actually known in what state silver occurs, but probably as a microscopical sulphide in the bornite.

Mine Works

As the ore has thus far been opened up mostly above adit level, no special difficulty has been met with in its extraction. In the stopes the miners are tasked to bore 42 to 60 inches a day of 10 hours' shift, single handed, according to the nature of the ground. The driving of levels is mostly let on contract, averaging about 25s. per foot in the wollastonite, inclusive of cost of explosives, and averages about 4 to 4½ feet per week for a level of 7 feet by 6 feet for four men. With a Rand rock drill the progress for the same ground is more than double, being not less than from 9 to 10 feet per week. The rock is somewhat tough, and breaks badly, owing to its fibrous character, especially when driving on end. In the stopes, chiefly worked overhand, the ore is broken on to stages supported by stull-timbers, but where over 8 to 9 feet wide, and the walls are weakened, square sets are built up. The blasting material is dynamite, of which from 2000 to 2300 lbs. are used per month. For light, small Scotch lamps are used, with a mixture of crude Virginia and miners special lamp oil in equal parts. From the Providencia Mine the ore is trammed and shot on to a lower plat, where it runs into the cars on the low level line that runs direct to the mill, where it is finally dumped on to the ore floor at the top of the mill. The Santa Fé ore is run out direct to the mill on the low level line without any re-handling. Stoping, inclusive of timbering, has cost during the past two years 2s. 11d. per ton. The rock-drill men—those in charge of the machines—obtain double the ordinary miner's pay, and are chosen from the best and most reliable of the miners; hence, to be a machine man is a post much coveted, and were it not for the fear of losing the position through carelessness or bad work, the rock-drill work would not compare so favourably with hand work. The nomenclature of the drifts and crosscuts is very confusing and misleading, as, owing to the ore courses running on curved lines, crosscuts have become drifts, and drifts begun as such have turned into crosscuts. Accidents have been comparatively few, in spite of the great majority of workers being inexperienced hands, and of easy, careless disposition. As the interest in the mine is more in its peculiar formation, I will but briefly refer to the power works lately put in and mills.

Power Works.

The power is derived from Pine Creek, at a distance of 3500 feet from the mill, and at a vertical height of 415 feet above it, the water being there led into an 18 inch steel rivetted pipe line, descending to the base of the mills. For the first few hundred feet the grade is about 4 per cent., after which the pipe descends by four steep gradients to the mills, ending in two branches, the main branch going to work the 60 ton concentrating mill, an 80 horse power air compressor, a 10 stamp battery, with small hoist for elevating tailings from bottom of jig mill to battery, with small hoist for elevating tailings from bottom of jig mill to battery ore bins, three Evans' tables, Frue vanner, lathe, and small 18 inch circular saw; the smaller branch works a 40 horse power Rand compressor, connected direct to a 5 feet Pelton wheel. A 4 feet Pelton wheel runs the rest of the machinery, as above described.

Pipe Line.

The pipe line was sent out in 4 feet sections, which were rivetted up and put together in 20 feet lengths, each length with a spigot and faucet ring rivetted on at either end. These 20 feet lengths were then dipped and placed *in situ*, beginning from the lower end, jointed up, and caulked with lead. For the first 1500 feet, commencing at the head of the pipe line, the pipe is 18 inches in diameter, of ¼ inch B.W. gauge, single rivetted; the next 500 feet is of the same gauge, but reduced to 17½ inches diameter, and double rivetted; the remaining distance being of 5-32 B.W. gauge double rivetted, and reduced to 17 inches diameter. The main branch ends in a 2 inch nozzle placed midway between the concentrating and stamp mills, and directly in front of the 80 horse-power compressor, driving them by means of belt and counter-shaft gearing. No great trouble was experienced in rivetting up and putting together the pipe line, which was chiefly done by the aid of unskilled native labour. The most difficult part of the work was finding, surveying, and grading a practical route along the precipices, as, owing to the narrow and circuitous gorges through which the river runs, no way could be found along its margin. The line was finished just in time to save shutting down the concentration mill, owing to a prolonged season of drought, the old power taken off at 79 feet head, being, save in the dry season, but just sufficient to run this mill alone. At the end of about 20 months of unprecedented drought, even with the 415 feet head of water, it was insufficient to run the compressors, though both mills were enabled to run throughout. Ordinarily there is always ample power, except in the dry month of May. From below the mill to the Rio de las Sierras there is as much power available again as above it, while, if need be, there is further water power available from the larger river.

Concentrating Mill.

The crushing plant consists of a 10 inch by 7 inch Blake crusher and three sets of rolls 14 inches by 24 inches. The dressing plant consists of two elevators, hydraulic classifiers, trommels, and 14 three-compartment Hartz jigs, two Collom jigs, three Evans' buddles, and one Frue vanner, which will be shortly supplemented by a second.

Treatment.

The ore is delivered at the top of the mill to a floor flush with the feed of the Blake. Thence it passes by grizzles and trommels to the coarse and medium set rolls, all that passes a No. 2 mesh passing to the latter, when it falls to the bottom of the elevator, is elevated and riddled through Nos. 4 and 5 mesh screens, returning the coarse again to the rolls. The elevator is some 30 feet in height, made up of seven-ply rubber belt, with maleable cast-iron cups, 10 inches by 6 inches, set at distances of 18 inches apart, fastened to the belt by pads formed out of old pieces of belting with ¾ inch Norway elevator bolts, and is run at a speed of 320 feet per minute. Formerly a link chain belt with sprocket wheels was in use, but it was superseded by the belt with better results. The ore passing through the No. 4 and No. 5 screen trommels, falls into the runs of the hydraulic classifiers. The Calumet and Hecla form has been replaced by the present, a pyramidal form of box, but with no better or worse results. The jig floor is divided into an upper and lower floor with a gangway running between the two. The upper floor carries three pairs of Hartz jigs, each pair of which is divided by the centre aisle; the first pair are set with a stroke of about 1 inch, running 140 strokes per minute; the second pair at ¾ inch stroke, running 156 strokes per minute; the third pair at ½ inch stroke, running 186 strokes or pulsations per minute, the mesh being Nos. 8, 10, and 12 to 14 respectively. The lower floor is a duplicate of the upper, with an extra pair of jigs, which take the finer sands of the whole mill; these are set at about $\frac{1}{16}$ inch, and make 240 pulsations per minute. The slimes run into settling tanks, and are treated on the buddles and vanner. The middlings from the coarse set jigs are drawn off automatically, and, falling into the boot of a second but smaller elevator, are raised to a third set of rolls, and crushed as finely as possible; these almost entirely consist of garnet carrying ore. Water for washing purposes is brought through 1000 feet of 12 inch steel piping formerly used to run the smaller compressor, but there seldom being enough water to run it in Copper Creek, this pipe line was discarded; there being an excess of power more often with the new pipe line than there is power enough in Copper Creek, the line was thus made serviceable.

Difficulty of Treatment.

The loss in tailings is very large, averaging about 55 per cent. of the silver, 49 to 50 per cent. of the gold (of this the final gold loss is reduced to about 10 per cent. by stamping), and 47 per cent. of copper. This loss is mainly due to two causes:—

(1) The high grade of concentration necessary in order to make it profitable to send it on its long journey to England.

(2) The nature of the ore itself.

The ore is usually dressed up to 40 per cent. of copper, 5½ to 7½ ounces of gold, and 56 ounces of silver. Above this the loss becomes too great; and below, the saving is not proportionate to the extra cost in carriage. By far the more serious loss is that caused by the garnet, which fills the jigs, concentrating itself from the lighter wollastonite gangue.

Not only is this loss caused by its high specific gravity, but also from the great difficulty in sizing the ore, the garnet breaking into solid-like spheroidal grains, while the bornite, being brittle and somewhat sectile, the two in a practical sense become inseparable. When extremely fine crushing is resorted to, the copper and silver are lost in the slimes. With ore from the Santa Fé side the loss is much less, the garnet being less in it than from the Providencia side. The latter, too, is a harder ore, and the wear on the rolls is greater, the output is somewhat lessened when entirely of it. The monthly output of concentrates varies with the degree of concentration, but is from 65 to 75 tons. About 55 tons of ore (2240 lbs. to the ton) is treated per day. The mill is run on 12 hour shifts with an average of 27 days per month, exclusive of all stoppages, which is a good record for Mexico, with its numerous feast days.

Tailings from Concentrating Mill.

As the tailings leave the mill they are stored in ponds, with the exception of about 36 per cent., which are hoisted up a long trestle work skipway, and automatically dumped into the stamp ore bins for further treatment.

Ten-stamp Battery.

This comprises two five-stamp batteries, 650 lb. stamp, sectional mortars, with the lower or box portion in five segments, carefully machined-planed and bolted together with the upper part of boiler plate housing rivetted together. The jig mill tailings pass from the bins by two challenge feeders into the mortars, passing out through a 30-mesh wire cloth screening. The drop is 6 inches, and from 90 to 94 blows per minute. Inside plates are found to scour, but by feeding in mercury every half hour inside amalgamation without them gives 20 per cent. of the amalgam caught. The outside copper plates are cleaned of amalgam every 24 hours, and are brushed up with a weak cyanide solution every six hours with a whisk broom, and intermediately brushed up without stoppage with a soft whitewash brush. Under this treatment the plates are found to keep clean and bright. Now and again they become badly cut when in the vicinity of a grey copper ore in the mine, but as this mostly occurs in bunches, it is as far as possible picked out by boys in the mine. Directly the cause is removed they quickly recover their former appearance. Dies wear very rapidly as compared with shoes; the converse of ordinary practice, both forged steel and chrome iron give like results, the life of a single shoe being equal to 3½ dies, or lasting to crush 4000 tons of sands. Once a month the dies are removed and the mortar boxes cleaned up, the sands being passed through a small machine of the Attwood type, made on the mine, and which answers the purposes of a clean-up pan. The stamp tailings are treated on the Evans tables and vanner, but, though saving something like 4 to 5 per cent., give unsatisfactory results. An experienced concentrating millman, sent for especially from Montana during the last few months, has been on the mine, but has been unable to make the slightest improvement in the tailings. The actual loss of gold in the stamp mill is from 15 to 25 per cent. of the jig mill tailings contents. The silver is not caught beyond that in the native gold. The erection of these stamps—a late experiment—has been highly successful, so far as the gold is concerned, and at the present time another 10 are being erected.

The rest of the plant comprises a sectional Walker's duplex compressor, 14 inches by 28 inches, which runs three direct acting pumps, throwing 10,000 gallons per hour from 60 feet deep, three Rand No. 13 slugger rock drills, and three blacksmith's forges. The smaller Rand duplex, 10 inches by 16 inches, is run as an auxiliary when the river is more than ordinarily full. Several hundred feet of both 3 inch and 6 inch pipe lines, several thousand feet of 18 inch gauge track of 13 lb. rails, cars, six Rand rock drills, small machine shop fitted with 6 inch gap lathe, shears, machine drills, screwing and pipe tackle, small 18 inch circular saw, and, at a distance of 4 miles, a 56 inch circular saw, with travelling iron bench driven by a single cylinder, 20 horse power engine, and tubular boiler.

The Staff, &c.

The staff consists of manager, assistant manager, and mine captain, one all-round timberman, head blacksmith, foreman in concentrating mill, machinist, storekeeper, and accountant. The remainder of the labour is Mexican, Mestizo, and Indian. The mine employs about 200 hands, while the camp has a population of nearly 500. The company's store has to keep all supplied with food and general supplies. The authorities are on good terms with the company, and allow the manager to act as Justice of the Peace. With the exception of one murder, and the company's store being fired, the camp has remained orderly during the past year, and compares well with mining camps in more civilised parts of the world.

Appended are a few tables of wages, and cost of the more common supplies, &c.

Cost of Materials at Mine.

Dynamite	$0·46¾ per lb.
Caps	0·1¼ each.
Fuse	0·28 1-5th per coil.
Cylinder oil	2·04 per gallon.
Lubricating oil	1·35 "
Kerosine	0·73 "
Miners' lamp oil	2·18 "
Grease	0·12½ per lb.
Cotton grease	0·14 "
Quicksilver	0·66 "
Charcoal	1·12 "
Firewood	5·00 per cord.
Iron	0·14 per lb.
Steel	0·28 "
M. hammers	0·90 each.
M. picks	1·32 "
Shoes	13·54 "
Dies	13·54 "
Screens, Nos. 4 to 8	1·51 to $1·62 per sq. ft.
" " 10 to 12	1·05 to $1·10 "
Candles (hand)	0·50 per lb.
Beans	0·5½ "
Corn (maize)	0·2 "
Sugar (native)	0·5 "
Aguardiente	4·30 per garafon.
Lard	5·50 "

Cost of Native Labour.

Time-keeper	$90·00 per month.
1st mine boss	3·00 per day.
2nd mine boss	1·50 "
Rock drill men	2·50 "
Assistant rock drill men	1·50 "
Miners	1·25 "
Surface labour	0·80 "
1st head mill man	1·50 "
2nd " "	1·50 "
Jig and buddle men	1·25 "
Battery men	1·00 "
Vanner men	1·25 "
General labour	0·80 "

* A paper read before a recent meeting of the Institution of Mining and Metallurgy

GOLDEN NEW ZEALAND.

HISTORY OF THE PAST YEAR.

Statement by the Minister of Mines.

(*Continued from page* 426.)

Otago.

ALTHOUGH there has been a large quantity of alluvial gold found in Otago, this part of the colony has never been to any extent a quartz-reefing district. The richest lode yet opened up is that in the Cromwell Company's Mine, at New Bendigo, from which it is stated about £400,000 has been paid in dividends. Notwithstanding this rich find, very little work has been done in this mine for many years past, with the exception of taking out some of the blocks of stone left in the early days—stone at that time considered of too low grade to pay for working.

The quartz workings at Skipper's and Macetown are the oldest in Otago, but the mines there have not yielded a very large quantity of gold—indeed, it is questionable if ever the mines in these localities have yielded in the aggregate as much gold as the Cromwell Mine at New Bendigo. Comparatively little gold is obtained from any quartz workings in other parts of the Otago district.

Great expectations were at one time formed of the gold-bearing qualities of the quartz reefs in the vicinity of Wilson's River, near Preservation Inlet, but these expectations have not yet been realised to any extent. The Golden Site Mine, in which very rich stone was obtained near the north side of Wilson's River, has not been proved to run for any great length. This district is, however, very little prospected, and several fresh discoveries have been made during the past year, which tend to show that both in the alluvial drifts and in the quartz lodes gold will be found remunerative for working when the country is properly opened up.

During the last year 13,390 tons of quartz and tailings were crushed and treated, which yielded 5713¼ ounces of gold, representing a value of £22,283, as against a value of £22,015 for the former year, and there were about 355 men employed in connection with the quartz workings.

Summary of the Quartz Workings.

Taking the whole of the quartz workings in the colony, it will be found that there were 171,433 tons of quartz crushed and tailings treated last year, which yielded 181,442¼ ounces gold and bullion, representing a value of £358,250, while 2191 men were employed in connection with quartz workings.

Alluvial Mining.

The alluvial gold workings still continue to supply about 60 per cent. of the gold obtained in the colony. This class of mining is entirely confined to the Middle Island, as only a small quantity, about 67 ounces, came last year from Stewart Island. The immense areas of ground covered with auriferous gravels, both on the West Coast and Otago, show that the largest percentage of the gold produced will be derived from the alluvial workings for many years to come. The extent to which these workings can be carried on is only limited by the quantity of water that can be obtained to command the ground. It is only in a few localities where the wash drift is sufficiently rich to pay for mining in the strict sense of the term—that is, by working from shafts and adit levels. The principal workings are carried on by hydraulic sluicing and elevating. During recent years, also, much of the gold has been got by using dredging machines.

The auriferous gravels are divided into five different classes—namely, the recent and more modern deposits; the older gravels found on the West Coast belonging to the Upper Miocene or Lower Pliocene periods; the still older quartz drifts found in Otago from the denudation of the Silurian quartz schist formation which covers so large an area in that district; the more concentrated gravel drifts found in the beds of rivers from the different formations; and the sea beach beds along the coast line, together with those formed at the higher levels on the West Coast. All these may be designated littoral, fluvatile, and lacustrine deposits.

The great factor for carrying on alluvial mining operations of every description is water; not only is this essential for hydraulic-sluicing operations, but it is also required as a motive power for working, pumping, winding, and dredging machinery. Wherever water can be utilised as a motive power, it lessens the cost of mining, and enables men to work ground remuneratively which could not be done if steam had to be used, unless the operations were close to a coal mine where fuel could be obtained at a cheap rate.

The mining districts in Otago being principally in the interior, where the rainfall is considerably less than elsewhere in the colony, extensive water races and reservoirs, although they may cost a considerable sum to construct in the first instance, will be a valuable asset, as when they are not required for mining purposes they can be fully utilised for irrigation, and greatly enhance the value of both agricultural and pastoral land.

Provision was made by legislation last year to afford encouragement to those interested in mining to construct large water supplies, so as to extend the scope of carrying on hydraulic sluicing operations; but, so far, only two applications have been made for subsidies under the regulations, for the construction of water races having a carrying capacity of over 20 sluice heads. Inquiries are now being instituted as to collateral advantages to be derived by the proposals submitted.

In order to allow hydraulic sluicing operations to be carried on, it was found necessary to proclaim several streams as watercourses into which tailings, mining débris, and waste water from mining claims may be allowed to be discharged, and for the past year and up to the end of July last, £2892 has been paid as compensation to the owners of alienated land since 1886. The question of any further proclamations will have to be carefully considered, as the claims for compensation in many instances amount to large sums of money.

Marlborough.

The alluvial workings in this district are situated in the Wairau Valley, Wakamarina, and at Mahakipawa. There are, however, only a limited number of men engaged in mining at these places. At Wakamarina another attempt is being made to work the gorge near the junction of Deep Creek with the river, where several companies, after spending a good many thousand pounds, have failed. It is to be hoped that the present company will benefit by the experience of their predecessors, and take better precautions against the floods which heretofore have prevented the bed of the gorge being worked.

At Mahakipawa there are still a number of men employed in mining, although many less than there were two years ago. Rich auriferous wash dirt has been obtained in the King Solomon Mine on Mr. Cullen's freehold, and the same run of gold is likely to be traced further down the flat. The difficulty experienced is the quantity of water, which requires good sized pumping machinery to overcome it.

The total number of miners employed in the Marlborough district last year was 253.

West Coast.

The alluvial workings on the West Coast extend from Collingwood to Jackson's Bay, and include mining in the proper sense of the term—namely, sinking and driving as well as hydraulic sluicing and dredging. The latter branch of mining is only yet in its infancy on the West Coast. Although a great many dredges have been placed on the ocean beaches to lift and treat the auriferous sand, they have, so far, not proved a success, owing to the washing appliances being defective for the character of gold found; but where dredges have been placed on river beds to deal with the concentrated material from the recent and more modern gravels, these machines have proved satisfactory.

Upper Buller.

There is a considerable population engaged in mining between the junction of the Inangahua and Buller Rivers and the head of Matakitaki Valley, where the workings are carried on along the banks and terraces fronting the Buller River, and also in the valleys of the Matakitaki and Glenroy Rivers. At the upper Matakitaki there is a great depth of auriferous wash drifts on many of the terraces, and during the last year the Mammoth Company has expended a considerable amount of money in bringing in a water supply to work these drifts by hydraulic sluicing. From the trial tests recently made a large quantity of ground is likely to be found that will pay for working in this manner.

Higher up than where these auriferous gravels are deposited is a very large area of country covered with quartz conglomerate resembling, to a large extent, that now being worked for gold in South Africa. These conglomerates extend from the Mangles to near the Maruia River. Some parcels have been tested at Reefton from this formation, and as high as 5 dwts. of gold to the ton have been obtained, but the area covered with these conglomerates is so large that it would take a considerable time to prospect the deposit, unless by mere chance a rich lead was met with. There is, however, an indication that a field will be opened up in this locality where quartz crushing machinery will be largely employed.

Westport, Addison, and Charleston.

There are a considerable number of miners working north of Westport, on the North Beach, North Terrace, and in the bed of the Waimangaroa River. Several nuggets have been recently found at the Waimangaroa, which led to a number of mining claims being taken up.

On the south of the Buller River there are about 20 men engaged in hydraulic sluicing at Bradshaw's Terrace; and there is a considerable mining population at Addison's, and also at Charleston. Addison's Flat comprises a large pakihi, having several leads of gold-bearing gravels running through it parallel with the ocean beach. There are a considerable number of mining claims on this flat which give remunerative returns for working, and more of the ground would be taken up if a further supply of water could be procured at a reasonable cost, the whole of the water from the local creeks and rivers being at present all utilised.

At Charleston the workings are principally on old sea beach deposits. Large areas are covered with a dark brown sand cemented firmly together with oxide of iron, which requires crushing machinery to liberate the gold which the sand contains. Several parties are also carrying on hydraulic sluicing operations, while others are engaged in washing the sand on the ocean beach, and making a comfortable livelihood. About 282 men are engaged in mining in the Westport district.

Grey Valley.

The whole of the country in the vicinity of the Grey Valley is more or less auriferous, and some very rich deposits of auriferous gravels have been and are still being worked on the south side of the valley, where there is almost an unbroken line of the old gravels extending from the Inangahua River to Maori Creek. In every gully and creek bed cutting into these gravels rich auriferous deposits have been found, and in many places bands and layers of these gravels have given good returns for driving out from shafts and adit levels. In many of the wide valleys, where the auriferous layer has not a great depth of superincumbent material above it, the ground is worked by paddocking.

Slab Hut, Antonio's, Blackwater, Snowy, Waipuna, Duffers, Half Ounce, Orwell, Callaghan, Nelson, Red Jack's, and No Town Creeks, with their various tributaries, have been and are yet the receptable of rich auriferous concentrated material, which will afford employment to a large mining population for many years to come, while the wash drift on the whole of the high terrace land along this line will give remunerative wages with a liberal supply of water with which to work it.

The ground on the north side of the Grey Valley is of a more recent formation; but still there are a number of good claims in the localities of Moonlight and Blackball, where many men are averaging higher wages than anywhere else on the West Coast.

Westland.

This embraces a large field, and one where no less than 2448 men were employed in connection with mining during the past year. It includes the portion of the West Coast from the Grey and Arnold Rivers to Jackson's Bay. It was in this district that gold was first discovered on the West Coast, by a party of Maoris, on one of their periodical visits to Greenstone Creek in search of the pounamu stone, so highly prized amongst them for making weapons of defence and ornament.

Kumara.

The largest centre of the alluvial mining population is at Kumara, where a great quantity of gold has been obtained from a comparatively small area of ground. This is still a place capable of supporting a considerable population. The leads of auriferous drifts are some distance back from the Teramakau River. This makes needful the construction of long tail races to convey the tailings from the mining claims to the bed of the river. Five of these long tail races have been completed, and a sixth is now being commenced, which will be about 70 chains in length. Where works of such magnitude have to be constructed with boxes and false bottom blocks, subsidies have been given towards their cost.

The revenue from the Government water race, which supplies most of the mines on the Kumara field, is dependent on the number of claims that can utilise the water, hence the necessity for giving assistance towards opening up new ground.

Callaghan's, Waimea, and Stafford.

At Callaghan's, Waimea, and Stafford men continue to get a livelihood working in the terraces. At Callaghan's a good deal of new ground will shortly be opened up, as soon as a branch water race, which is now in course of construction, is completed; and at Waimea a long tail race is in course of construction to enable new ground in the middle branch and the upper portion of Waimea Flat to be worked by hydraulic sluicing. Between Waimea and Stafford men are only making small wages owing to the distance at which the workings are from the creek bed—which is the only place for the deposit of tailings. Then the small amount of fall for the sluices, together with the fact that the ground is gradually deeper as it gets into the range, prevents the same amount of bed rock from being laid bare as in former years, and, consequently, there is a large decrease in the yield of gold.

Humphrey's Gully.

At Humphrey's Gully there is a large area of ground covered with auriferous gravels, which in some places are 300 feet in depth, with plenty of wall. The whole of them may be worked by hydraulic sluicing. A company has been working these gravels for the last seven years with a small supply of water, and gold to the value of about £30,000 has been obtained, but the quantity of water at the command of the company is totally inadequate to work this large deposit on anything like an extensive scale. Recently arrangements have been made for additional capital to extend the company's water race to the Arahura River, where, practically, an unlimited supply will be obtained.

Blue Spur.

At the Blue Spur extraordinarily rich ground has been opened up during the last year, the wash drift containing nearly 3 ounces gold to a load. This discovery is due to Mr. Augustus Boys, who, by indomitable perseverance, constructed a drainage tunnel for nearly a mile in length to test the ground, he having been seven years in completing the tunnel, and now he is likely to be well rewarded for his outlay. Not only has Mr. Boys got on to rich gold-bearing wash drift, but other claims adjoining him have found the same lead going through their ground. About 40 acres of this ground were applied for as a freehold by Mr. Dwyer, but arrangements have been completed for resuming possession of this ground in order to throw it open for mining.

Kanieri and Rimu.

The Kanieri diggings are getting pretty well worked out near the township, still there is a considerable population engaged in mining in the district, scattered about in the different gullies. Workings are carried on at the Kanieri Forks, Gentle Annie, and other places near the branches; while at Woodstock, Back Creek, Rimu, and Seddon's Terrace there is a large population employed, some working from shafts and adit levels, and others, who have small supplies of water, carrying on hydraulic sluicing operations.

There is a great depth of alluvial drifts in the vicinity of Back Creek and Seddon's Terrace, with different bands or layers containing gold, but all these layers are lying on a false bottom. In no place has the main bottom in this locality been reached. How far back these gold-bearing layers will be found has not yet been determined; but the best of the ground—that is, the richest of the layers of auriferous bands—does not extend for a long distance back from the face of the terrace fronting the Hokitika River.

Ross.

This is a place where it is known that a rich lead of gold exists in the flat; but, being below water level, it requires very powerful machinery to drain the ground, which has been lying for many years without anything being done to work it. The best gold-bearing layer on this flat is about 240 feet under sea level, and is a fluvatile deposit, with gravels and stones highly rounded, and of the same soft brown formation as the "Old Man" bottom, of which the lead on Ross Flat is only a concentration. This lead has been partially worked to near the foot of German Gully; but there is a probability that a rich gold-bearing layer will be found further on towards Donohue's near the foot of Sailor's and Swiper's Gullies.

No workings can be carried on here unless provision is made to prevent the water from Jones's Creek getting down into the lower workings, and the quantity of water in that creek in time of floods is more than any ordinary pumping machinery could cope with. It is ground which cannot be worked unless by a company with a large capital, as a considerable expenditure will have to be made to cut off all the water to prevent it reaching the flat, and a very large pumping plant will also be required to not only drain the water which is now accumulated in the old workings, but also to cope with the permanent inflow through the different layers of gravel. From what is known of this flat, there is a considerable quantity of gold in the drifts; but a large sum of money will be required before the flat can be successfully worked.

The quantity of gold produced on the West Coast last year, exclusive of that obtained in the Collingwood district, was 85,015 ounces, representing a value of £339,731. The total quantity produced to March 31 last was 5,517,080 ounces, having a value of £21,921,556.

Otago.

This is a field which has produced a large quantity of gold, and the workings in the early days, being in shallow grounds with remarkably rich deposits of auriferous gravels, were the means of bringing New Zealand prominently before the world as a gold-producing country, and of causing a rapid influx of population. Many of those who were first attracted to our shores have invested their earnings on the gold fields in the purchase of homesteads, and have tended greatly in the permanent settlement of the lands of the colony.

(*To be continued*).

GOLD AND COAL IN UPPER BURMA.—According to information from Upper Burma, active operations for the development of the mineral wealth of that province are about to be commenced. Ever since last December excavations for gold have been in progress at Chaukpazat, in the Wuntho district, and a promising reef has been exposed. Machinery was ordered from England and is now in course of erection at the mine. Wuntho is one of the most important stations on the Mu Valley Railway, about half-way between Mandalay and Mogaung. A not less important discovery of coal of an excellent quality is reported from Lawksawk, a district in the southern Shan country, and watered by the Zawgyee, a tributary of the Salwen. The coal is said to lie near the surface, and the field covers an immense area. The climate of the Yatsuk territory, of which Lawksawk forms part, is described as of great salubrity, and particularly well suited for European colonisation. It consists mainly of a table land between 2500 feet and 3000 feet above the sea, and the temperature in the hottest season does not exceed that of England.

THE IRON TRADE IN AUSTRIA.—In the report of the Austro-Hungarian State Railway Company for 1894, which has lately been issued, some particulars are given of the production of the mines and ironworks of the company. At the iron ore mines in South Hungary, 148,961 tons of ore were extracted, an increase of 14,529 tons over 1893. The output of pig iron at the blast furnaces at Anina, Reschitza, Bogschan and Dognatschka amounted to 70,727 tons, an increase of 954 tons. Of finished iron and steel 54,880 tons were produced, an increase of 740 tons, and of machinery 9955 tons, a decrease of 1295 tons. A steel foundry has lately been added to the Reschitza works. The engineering works of the company in Vienna turned out only 52 new locomotives, as against 76 in 1893.

NEW SOUTH WALES GOLD OUTPUT FOR 1895.—The Mining Department estimates the gold yield of New South Wales for the year ended December 31 last at 360,165 ounces, valued at £1,315,929. This, says Reuter, shows an increase, as compared with the previous year's yield, of £159,211.

LIQUID FUEL ON THE AUSTRIAN STATE RAILWAYS.—For some time past the Austrian State Railway authorities have been experimenting with petroleum as fuel for their locomotives, and it is now reported that they are making arrangements to adopt liquid fuel on an extensive scale.

NOTES ON GOLD MILLING IN CALIFORNIA.

By ED. B. PRESTON, M.E.

Bulletin No. 6. issued by the California State Mining Bureau

(*Continued from page* 427.)

THE following guide or a proper condition of the work on the belt is given by Henry Louis, M.E., F.G.S., &c., in his very useful work—"A Handbook of Gold Milling," 1894, p. 324:—"The working conditions should be so adjusted that a small triangular patch of sand should show at each of the lower corners of the belt. These sand corners should not be too large, but must be well marked, and the two should be of equal size. Should they be unequal, the fault will be found to be either in that the belt is not accurately level across, that the distributor is not doing its work properly, or that some of the working parts have not been properly tightened up, so that there are other motions than the normal ones communicated to the belts. Too large a corner of sand shows that the pulp is too thick, while absence of any corner indicates that it carries too much water."

Two of the 4 feet belt vanners, or one of the 6 feet, handle the pulp from a five stamp battery. The amount of clear water required to be added is about 1-5th cubic foot per minute; the vanner requires about ¼ horse-power.

The Triumph differs from the Frue, principally in that it has an end shake of 1 inch, and slightly quicker stroke (230 per minute), the belt making a forward movement of 3 feet to 4 feet per minute. It receives the pulp in a bowl containing quicksilver before reaching the distributor, which is all kept in agitation by revolving stirrers.

The Woodbury is similar to the Triumph in extent and number of motions, but divides the belt into seven longitudinal partitions; an increased output being claimed for the construction.

The Tulloch gives a rocking motion from a fulcrum on the floor, making 140 shakes of 1¼ inch per minute, using either canvas or rubber belt. This machine, it is claimed, saves a somewhat larger amount of the finer and richer grade of sulphurets as compared with the former types.

The Embrey is similar to the Frue, but with end shake.

The Johnston, with improvements, and the latest of the belt concentrators placed on the market, claims many points of advantage. It is suspended from four non-parallel hangers capable of adjustment, by which the angle of oscillation can be changed as required, preventing the accumulation of sand at the edges, such as occurs with the horizontal side-shake machines, or the piling of the sands in the centre of the belt that occurs with the rocking motion. The motion imparted to this belt resembles more nearly that of the batea than that of any of the other concentrators. The belt is made of No. 6 duck, oiled and painted, but a rubber belt can be used at one-third the cost of those with molded edges, which are short lived. Small, hollow, brass side rollers on the shaking frame form the raised edges by curving the flat belt slightly upwards. The pulp is delivered from five slots running parallel with the belt frame, ¼ inch wide and 16 inches long, leaving 10 inches spaces, into which the pulp is thrown when it strikes the belt. Here the separation at once takes place; the sulphurets settling on the belt are carried by it up to the clear water, while the sands are carried down the belt. In neither case are the sands or sulphurets obstructed by the falling of water and sands, as in other machines where the pulp is discharged across the belt. The clear water at the head of the table, instead of being discharged from a stationary box to the moving table, is discharged from a distributor, which is attached to and moves with the table, thus stripping the belt of the smallest possible portion of sulphurets. Two widths of belt, 54 inches and 72 inches, are used, which are given a grade of 1-5th inch to ¼ inch to the foot, making about 118 side shakes per minute. One machine handles the pulp from a five stamp battery.

Another vanner, soon to be placed before the mining public, consists of the essential features of the vanner, but carries a rubber belt with depressions all over it, 2 inches in diameter and ¼ inch deep, shaped after the bates, while the entire belt receives a motion corresponding to that given to a batea.

As the motion and grade given to any of these machines can only be correct for a certain size of grain in the pulp, it would be advisable to introduce some method of sizing the pulp previous to bringing it on the concentrator, and feeding the sized material to different machines. The finer the screen that has been used in the battery, however, the less does the lack of sizing affect the product from the concentrators. The concentrators should always, where possible, be attached to power independent from the stamps, and be placed on a floor below the aprons and in a position to permit the attendant to pass all around, and to conveniently transport the concentrated stuff to the covered drying floor, which should be made with a slight incline, preferably of concrete, and exposed to the sunlight.

Canvas Platforms or Tables.—Investigation proving that the slimes passing off with the waste from the mill and concentrators still carried an appreciable amount of precious metal, millmen during the last few years have extended their operations, and re-treat the hitherto escaping slimes. This is done by conveying all the waste material from the mill, through sluices, to canvas platforms having the following general features.

A platform is built of clear, seasoned, and planed 1¼ inch planking, on a solid, level foundation, and given a grade of about ¾ inch to the foot, over which No. 6 canvas is stretched smooth, longitudinally, though sometimes crosswise, with a 2 inch overlap. Particular attention must be paid that the canvas is stretched smoothly and evenly, and that no crack opens between the planks constituting the platform. The length and width of the platform required depends on the amount of pulp to be handled; overcrowding must be avoided. The platform is divided longitudinally into sections corresponding to the width of the canvas, which is 22 inches; the partition is made of wooden strips 2 inches wide and ¼ inch high, covering 1 inch on the edge of two adjoining pieces of canvas. Running along the head of the platform are two sluices, one placed above the other; one containing clear water, the other pulp from the mill, both furnished with ¾ inch to 1 inch plug-holes over each section. Below the lower edge of the platform are two sluices placed side by side, the inside one to convey the waste, the outer one for the concentrates (sweepings) from the platform. When ready for operation the plugs are withdrawn, and both pulp and clear water commingled flow down in an even current, and are discharged through the bottom waste sluice. After one hour, or less, the plug is inserted in the pulp box over the first section, and the clear water permitted to run for a few minutes longer, during which time quartz sand may be observed passing off the canvas, leaving a dark, partly metallic appearing sediment on the canvas. A tray or board is then placed over the waste sluice, connecting the lower edge of the section with the outside sluice, and the sediment is removed from the canvas, either by sweeping or with the aid of a hose with a flattened nozzle, to be worked later by chlorination or cyanide process.

The following is a description of an improved canvas plant erected and operated in Amador County, by the patentee, Mr. Gates. In this case, the pulp and waste water are conducted from the mill in a flume to the plant, and there divided into two equal streams by the insertion of an adjustable division plate in the flume. The divided pulp passes into boxes 4 feet long and 1 foot wide, and having steel screen bottoms with ¼ inch and ⅛ inch perforations, set on a reversed grade of 6 inches to the box. The object of these screens is to prevent any chips, leaves, lint, or foreign substance from passing into the sizing box beneath, which consists of a wooden V-shaped trough, 6 feet long, 15 inches broad at the top and 2 inches in the bottom, constructed of 1½ inch boards. A piece of canvas is tacked on the bottom for packing; underneath is nailed a piece of scantling 4 inches by 6 inches, at one end of which, reaching within 2 inches of the end of the box proper, a slot 14 inches long and 2 inches broad is cut; here a flattened galvanised iron funnel ending in a 2 inch pipe is attached. The pulp falls through the screen with some force, and is considerably agitated in the separator box. Naturally the coarser and heavier particles have a tendency to settle towards the bottom. Were the outlet there large enough, all the pulp would pass down and out. Its size of 2 inches causes the box to fill to the height of a sluice box in the end, through which the finer pulp flows to the canvas tables. To facilitate the separation, a device is placed in the lower end, consisting of an iron pipe, ¾ inch inside diameter, connected with the main pipe above the screen, and divided into two sections, which are connected by rubber hose for ready detachment. The lower 6 inches of the iron pipe has small perforations, through which clear water is ejected, causing an agitation of the pulp. The end of the pipe is stopped with a wooden plug, easily removed. The agitation at the end of the pipe causes the fine material to be carried upward and into the sluice at the end of the separator box. Only coarse sand passes through the bottom pipe, and on examining this with a magnifying glass, very few particles of sulphurets are discernible. This separator works well, and disposes of a lot of coarse, valueless material that would otherwise interfere with the subsequent working of the slimes on the canvas platforms. The fine pulp flowing from the top of the separator is conducted in a sluice to a broad, flat box, in which the stream is divided by partitions into 10 separate currents, each terminating over a canvas table, 10 in a row. The pulp goes over a spreader made of strips of galvanised iron, ¾ inch in height, radiating from a common centre to the farthest side of the table, which is 12 feet wide. These strips are nailed to an inclined board extending across the canvas table, having an iron strip 1 inch high, fastened to the lower end, perforated or notched, with indentations ⅛ inch deep and 1 inch long, affording a perfect distribution; 20 tables are arranged in two rows of 10 each, covered with canvas laid crosswise and overlapping about 2 inches. These tables have a grade of 1½ inch to the foot, are 13 feet long and 12 feet wide. After receiving the flow for an hour, it is shut off from the table and a flow of clear water turned on, which in a few minutes washes away the sand, when it is also stopped; then with a hose ending in a flat nozzle, the accumulated sulphurets are washed from the canvas into a trough below, extending along the base of the entire series. In order to secure sufficient fall for this sluice, each succeeding table is set 4 inches lower than its predecessor, giving 40 inches fall on 125 feet of sluice length. Two extra tables are arranged, one at the end of each row, to take up the surplus flow during the time one of the tables is shut off, to avoid overloading, as each table already carries the proper amount of pulp. The effectiveness of the canvas tables depends on maintaining an even flow of pulp during a given time; it will not do to overload them. All the pulp that leaves the table is considered waste, and is collected in a flume, to be used a short distance off as power on an overshot wheel, by means of which the patentee runs a vanner of his own invention. This waste water is caught up again and used on a second wheel, which also runs a vanner. The sulphurets washed from the tables flow through a sluice to a box outside the building, 12 feet long, 2 feet wide, and 12 inches deep, with a cross piece 2 feet from its upper end, reaching within 2 feet from the top of the box. In this upper section the coarser grade of the material is retained, while the finer flows over the weir, The two grades are shovelled out separately and placed in separate V-shaped boxes, over which are perforated iron pipes, from which small streams of water trickle, gradually carrying the pulp down and passing it through sluices on to the spreaders of separate vanners. These two machines work with different motions, doing excellent work on this impalpably fine stuff. The slimes flowing from the washing boxes beneath these vanners are conducted, with the overflow of the two compartment boxes above referred to, to two other canvas tables, below which they are allowed to escape as waste; not that they have given up all the precious metal they carried, but because the point is reached where it is more economical to lose the remnant than to attempt to save it.

As the slimes from most of the canvas plants, as usually operated (especially where the ore crushed carries a heavy percentage of sulphurets, or has been stamped with a high discharge), are still valuable in gold, they can be conveyed to so-called slime settlers, or tanks. These tanks, for there are generally several, are placed below the canvas platforms, and are about 2 feet deep, 2 feet wide, and 12 feet to 20 feet long; they are divided into sections of 2 feet square, by 2 inch planks set on edge, extending alternately from each side, leaving an opening 4 inches wide and 2 feet deep, causing the slime water to take a serpentine course in passing through. The tanks stand level, and the slimes, in settling, form their own grade as they enter at one end of the tank, and, passing through the successive sections, issue at a diagonally opposite point only slightly clouded. These tanks require cleaning only at long intervals.

Up to the present time, the concentrates in the California mills have been generally handled by the chlorination process, to free them from their gold, but within the last year several plants are successfully working them by the cyanide process.

The tendency in the construction of mills at the present day is to a substitution of steel for iron, where possible, and to an increase in the weight of the stamps.

A greater application of grinding and amalgamating machines in place of or subsidiary to the stamp mill is also noticeable, the most popular of which will be shortly described.

For a more thorough appreciation and knowledge of the work done by mills records should be kept by the amalgamator of all transactions connected with mill work, showing every item, loss of time, consumption of mercury, iron, fuel, water, amount of rock treated, &c., in addition to the records kept in the assay office. This is already being done to some extent, but such records should be kept in the small mills as thoroughly as in the large ones.

Grinding and Amalgamating Machines

Arrastras.—Although the arrastra has been largely superseded by the stamp mill, the fact remains that it is the best and cheapest all-round gold-saving appliance we have. Hence, its use is always indicated where small rich veins are worked in the higher mountain regions, but it is also found valuable placed below the present quartz mill, where the waste waters from the mill can be picked up and used over again for power on horizontal or overshot wheels. In these cases, it handles the tailings from the mill after they have passed over the concentrators and canvas plants. This part of the milling is usually leased to parties who pay the mine a fixed amount per ton for the tailings, the lessees putting up all their own machinery These arrastras are built of a size to handle at least 4 tons of tailings in 24 hours. Their foundations are either formed of hard rammed clay, concrete, or a plank platform with broken joints, on which a bed of clay is placed. The foundation is always made larger than the circumference of the proposed arrastra. The bed is formed of rocks harder than the substance to be crushed, usually fine grained basalt, granite, or quartzite. These are picked with a partially level surface, and as near of the same thickness as possible, usually from 1 foot to 2 feet thick. They are built around a centre cone, forming an annular ring from 2½ feet to 6 feet wide, and are laid with narrow spaces between each rock, into which dry clay should be tightly rammed to within an inch of the surface. The outer circle is formed of rocks or staves, with rammed earth behind, and built from 2 feet to 4 feet in height. On the central cone, which consists of stone or a block of wood, and which stands somewhat above the paved bottom, a centre post is let in, from which project four arms at right angles to each other, and extending nearly to the outer circle. Heavy hard rock drags, weighing from 200 to 1000 lbs. each (from 400 to 600 lbs. is the usual weight), are attached to the arms by ropes or chains passing through eye bolts secured in the rock drags. They are placed so that part of them drag near the cone, with the inside corner slightly in advance, while the remainder sweep near the outer circle with the outer corner in advance. The front edge should always be slightly elevated, so as to permit of the particles passing under the drag instead of being pushed ahead.

Where a horizontal wheel is used, the arms are attached to the centre post, and the wheel encircles the arrastra, the water striking on buckets set to an angle of 45°. With overshot wheels the arrastra may be run by a belt and pulley attached to the centre-post, or by a spur gearing. It requires about 6 horse-power to run an average sized arrastra. Running tailings, a speed of 15 to 30 revolutions per minute is given; crushing ore, the arrastra should be run slower and the pulp thicker.

For discharging the arrastra, plug holes at different levels are put into the outer circle, leading the pulp into sluices lined with plates, riffles, and blankets. In some cases the arrastra has been made to work continuously by fitting a screen to a part of the outer circle and letting it discharge into a line of sluices. As the arrastra bottom and drags are extremely uneven and rough when first set up, some coarse sand and water are introduced on first starting, and the drags are allowed to run slowly until somewhat smoothed down, before the regular charge is introduced. The machine is usually only cleaned up thoroughly when the bottom is worn away; between times the crevices are picked out for the depth of an inch or two with picks, scrapers, and spoons, and panned out, with what pulp remains on the bottom, after the charges have been successively thinned down and run off through the plug holes. If crevicing has been done, a little fresh clay can be rammed in to within 1 inch of the top of the bed. During the grinding of the charge, the quicksilver is introduced through a cloth; the amalgam should be kept drier than in the stamp battery, though not sufficiently so as to become crumbly. Great attention must be paid to tamping the bed in solid, otherwise an excessive loss of quicksilver may occur. Continual horn tests of the pulp furnish a guide for the proper working.

Machines have, from time to time, been introduced in California to replace stamps, claiming to do more effective work, both as regards the crushing as well as the amalgamating. Those mostly seen in operation, and finding the most favour, are the Huntington and the Bryan mills, which may be taken as types, and which reduce the ore by a continuous rolling motion; in the one case the roller acting on a ring on the circumference, and in the other on dies in the bottom.

The Huntington Mill consists of a shallow iron pan with a central cone, through which an iron shaft revolves. Bolted on the sides of the pan and inclosing it, are semi-circular iron sections made in two halves and also bolted together; one of these sections contains an opening about 9 inches deep, divided into three parts, into which curved iron screen frames are keyed, while the other section contains a feed trough, attached near the top. Between the bottom of the pan and the lower edge of the screen frames an iron or steel ring die fits against the sides of the shallow pan, being secured by wooden wedges; against this die, four rollers, suspended from yokes resting on an iron cover, revolve, receiving their motion from the central shaft. These suspended rollers are pressed by centrifugal force against the ring die. Each roller is encircled by an iron or steel shoe fastened by wooden wedges; this can be renewed when worn too thin, or when it becomes unround—flattened. Means are provided for lubricating the shafts on which the rollers work, without permitting the lubricant to come in contact with the pulp. As the rollers hang about ¼ inch above the bottom of the pan, scrapers are attached to the revolving cover between the rollers, and reaching to the bottom of the pan to prevent the baking of the pulp.

The size of the pan most frequently used is 5 feet in diameter, though for prospecting purposes one of 3½ feet is also made; the former is run at a speed of 70 revolutions per minute; the latter at 90 revolutions. They are provided with self feeders, which introduce the ore at regular intervals—the only way in which they can be operated, though not correct in principal. A 5 feet mill requires about 8 horse-power, and crushes about 20 tons per day. Before starting up a certain amount of quicksilver, up to 50 lbs., is introduced into the pan with some water and rock. The supply should be regulated to make a stiffer pulp than in a stamp battery; quicksilver is added from time to time. A groove in the bottom of the pan, connecting with a plug hole on the outside, permits of the quicksilver and amalgam being drawn off at intervals to recover the latter, after which the former is returned. If the pan is working correctly the bottom around the centre remains bare; this can be observed through the cover while running; when not bare, it is a sign that the pan is being overfed. As the machine throws the pulp with considerable violence through the curved screens, a shield is placed outside of them, directing the pulp into a narrow sluiceway, with a spout opening on the apron plate. It is claimed that the percentage of gold amalgamated and saved on the inside is far greater than in the stamp mortar, going above 80 per cent. all rusty gold being subjected to a heavy scouring action. The Russian iron screens used are short lived; they can be made to last somewhat longer by placing a false screen, made from an old worn screen with the openings enlarged, between the pulp and the screen proper.

Great care must be exercised in putting up one of these machines to get it perfectly level and on a rigid foundation, and to keep all the bolts holding the pan on the foundation well tightened up; the feed also requires close observation

When cleaning up or renewing the ring dies or shoes, the top cover, with the suspended rollers, are lifted out with chain block and tackle, leaving the interior of the pan free for operation.

The mill works well on soft quartz and clayey ores introduced

in pieces not larger than walnuts. A great drawback to the machine is that the rings on the rollers and also the dies become unround, so that instead of rolling smoothly they strike in places, necessitating changing the rings before they are worn out; this changing takes up some time.

The opinions of millmen who have handled the Huntington mill, as to its merits, are very diverse. Where the ore produces a large amount of fine stuff, by using a grizzly with closely set bars, the Huntington can be run to advantage on these "smalls" in conjunction with the stamps.

(*To be continued.*)

MEETINGS OF MINING COMPANIES.

THE GREAT LAXEY MINING COMPANY, LIMITED.

THE half-yearly general meeting of the shareholders in the Great Laxey Mining Company (Limited) was held at the Cannon-street Hotel, on Wednesday, Major JAMES SPITTALL (Chairman of the company) presiding.

The LONDON SECRETARY (Mr. W. Allen) read the directors' report, which was as follows:—

Your directors again sincerely regret that they are unable to produce a more favourable report and statement of accounts than that already published. They can only say that the very utmost has been done by the board and every officer connected with Great Laxey to bring about a more prosperous state of affairs for the benefit of the shareholders. Expenditure in every possible direction has been curtailed consistent with the proper maintenance and efficiency of such a property as Great Laxey Mines, and the only thing necessary for a return to prosperity is an improved lode and better prices for our produce. There has been some improvement in the latter, and from Captain Redd'cliffe's report it wi l be observed that there is reasonable ground for believing that the Pioneer or 255 fathom level north may possibly soon cut a good lode, in which case the future of Great Laxey would be again secured. Your directors are still continuing negotiations with the Commissioner of Woods upon the question of royalty from whom they still hope to obtain some further concession under the existing circumstances.—JAMES SPITTALL, P. MOSLEY, A. BRUCE, W. B. STEVENSON.

The following is the report of the manager at the mine:—

GENTLEMEN—We have not employed steam power at all for the purpose of compressing air for driving the rock drills during the past six months, and as there has not always been a plentiful supply of water for the purpose, the ends have not been advanced so rapidly as they sometimes have been. However, as there is a considerable difference in the cost between the two systems of working, we felt bound to adopt the cheaper in these hard times, and be content with the speed that could be accomplished with the available water power. In the half-year the 295 fathom level north of Welsh shaft has been driven 23 fathoms, and as the lode was met with very shortly after the last half-yearly report was written, about 20 fathoms of that distance has been upon the lode. Where the lode was first cut it was found to be about 3 feet wide, composed largely of hard quartz; but it soon increased to 4 feet and more in width and to show occasional spots of ore in places, for short lengths, of sufficient value to make the stuff worth saving. The end is now abreast of Dumbell's shaft within a very few feet, and communication should be effected by holing to the crosscut within a few days. The water has been so far tapped that it is now lowering in the shaft 3 feet a day. The 273 end north was driven on 15 fathoms further, but in a small and unproductive lode. At this point the end became very hard, and apparently has entered the porphyry dyke passed through successively in many of the levels above. The end is suspended at present while a rise is being put up in the level some distance behind the end. This rise, together with a stope worked in connection with it, is worth £ 0 a fathom, and is up 4½ fathoms. There is at present but one other working place in the immediate roof of this level—a joint rise and stope—the value of which is £3 per fathom. In the 266 level north there is a joint sink and stope, the value of which is £12 per fathom; a stope in the sole worth £18 per fathom; a stope in an intermediate driving between the 266 and the 273 fathom levels worth £10 per fathom; and another, similarly situated, worth £8 per fathom. Driving north in the rock in the 255 fathom level has been continued for an additional 20 fathoms during the six months. When about 10 fathoms of this had been driven, numerous thin hard bands of silicious rock were passed through in the next four fathoms; but since these were cleared the end has gone on in a fair average congenial clayslate rock. The general improvement which has been taking place in the appearance and character of the rock has been gradual and slow; but we think that so real has the improvement now become that a crosscut may be put out with a fair chance of finding the lode, also of an improved character. We propose to commence to crosscut very shortly, or as soon as a favourable cross joint presents itself. In the sole of this level there is a stope value £8 per fathom. Two stopes, one on each side of the winze, below the 235 north of Welsh shaft, are worth £6 and £8 respectively. Two stopes in roof of 235, also north of Welsh shaft, are worth £5 and £3 per fathom respectively; and one stope in roof of the 220 north, by Dumbell's shaft, is worth £18 per fathom. It will be noticed in reading the foregoing report that the two chief points of interest are the pushing on of the bottom level from Dumbell's shaft northwards, under the ore ground, which proved so good in some of the upper levels; and the possible cutting of a good lode at that very advanced point in the end of the 255 fathom level, both of which I hope may turn out satisfactorily in the early future. In referring to the machinery, plant, &c., I may say that a few weeks ago we had rather an extensive breakage of the pitwork rods, in consequence of a flaw in a heavy wrought iron connecting plate which gave way, but all was put right again in seven or eight days, and everything else is maintained in the usual good condition.—F. REDDICLIFFE.

The CHAIRMAN said: Gentlemen—You will miss from the meeting to-day the old and familiar face of Captain Penketh, who for many years occupied a seat on the board, but after the last meeting his health broke down to such an extent that he was compelled to resign his position. The board, in consequence, have elected in his stead Mr. Alexander Bruce, who is connected with almost all the principal enterprises in the Isle of Man, and is also Chairman of the Douglas and Isle of Man Tramway Company, which is well-known to be a prosperous concern. The directors are exceedingly sorry that the result of last year's working should not have proved more satisfactory. The sales of ore have been, strange to say, within a few tons of the sales during the previous half-year. In the previous six months we sold 200 tons of lead, and 1010 tons of blende, realising £5710 15s., whilst in the present half-year we also raised 200 tons of lead, and 1090 tons of blende, the proceeds upon which amounted to £5607 12s. 11d. Therefore, on the sale of the produce there has been a reduction of £103 2s. 11d. As to our general expenses during the previous half-year they were £6386 1s. 11d., but in the present half-year they have only been £5992 13s. 9d., showing a reduction on the general working account of £393 7s. 4d. Our operations underground have been so similar to what was reported at the last meeting, that if I could remember and repeat what was then said it would fully meet the requirements of the present situation. They have been mainly confined to driving the 236 and 255 levels, in doing which we have not made so much progress as we could have desired, having in working our drills trusted to our water power to save the expense of driving by steam. The 295, the bottom level, having reached the lode, has drained much of the water from Dumbell's shaft, has already yielded saving stuff for the washing floors, and we hope shortly to reach the productive run of ore ground found in the level above. The 255 has been driven during the whole of the half-year in dead ground, and has been extended far beyond what was intended or expected. It was one of the points insisted on by the Crown in connection with the reduction in royalty, but when about to cross cut to reach the lode, the ground was found to be so disturbed that the crosscut was abandoned. This disturbed portion has now been passed through, and the settled and congenial quality of the rock has determined the manager to commence the crosscut, upon the success of which so much depends. The stopes throughout the mine retain their value when compared with the previous half-year. The directors, as stated in their report, have carried out the strictest economy in respect to expenditure, consistent with efficiency, in working and maintaining the mine in proper condition. They have dispensed with the services of their second or under manager and their engineer. The latter, however, continues to reside at Laxey, whose services are available when necessity arises, and with a general reduction in other directions, a further considerable saving will be made in the present half-year. Negotiations are still being continued with the Crown for some further concession and assistance, the proposal made to continue the reduction in royalty for one year from October last being wholly inadequate. The diminished produce of the mine renders the reduction of little service, and offers little encouragement for the future, so, in the event of a successful issue, the benefit might be lost, though the very heavy expense of bringing it about had been defrayed by the company. I think this is all that it will be necessary to bring before you to-day, and, therefore, I will now move:—"That the report and accounts be received and adopted, and that the directors' report be printed and circulated amongst the shareholders as usual."

Mr. RAMSBOTTOM seconded the resolution, and it was unanimously agreed to.

A SHAREHOLDER thought that the most favourable portion of the report of the manager was the first clause in which it was stated that they were cutting down expenses and drawing as little ore as they possibly could.

The CHAIRMAN: Oh, no! as much as we can.

A SHAREHOLDER observed that it seemed strange with the price of lead so low they should be giving away a part of their profit by drawing so much ore. He was quite aware that they must carry out certain works, but, looking at it in the light of a speculator, he thought the less they sold at the present price the better. When prices rose again let them draw as much as they could, but at the present time they were throwing away their profit. He would also suggest that the reserve fund should be used instead of getting the bank to discount their bills. This would, he considered, effect a small saving.

The CHAIRMAN, in reply, said so far as the working of the mine was concerned, for some time past they had not done more than they were compelled to under the arrangement with the Crown. The Crown insisted on the driving of a certain shaft and the 255 fathom level. He expected every day to receive the news of the crosscut in this level cutting the lode, and if it was found to be very rich it would be the making of Great Laxey again. In fact, it would practically be a new mine, as there would be more than 350 fathoms of backs to work.

Subsequently the CHAIRMAN said he wished through the Press to thank the many shareholders who so kindly sent in their proxies. Considering the unsatisfactory state of things under which they had been working, it was very gratifying to find that the shareholders still had confidence in the board, and he hoped that at the next meeting they would have a better report to present.

Mr. RAMSBOTTOM moved a vote of thanks to the Chairman and directors.

A SHAREHOLDER seconded the resolution, and it was carried.

The CHAIRMAN, in responding, said, on behalf of himself and his co-directors, he assured them that he felt exceedingly obliged for the kind manner in which they had received the vote. There was no doubt that they had been placed in a very critical position, but he hoped shortly they would be able to announce that they had turned the corner, and would be in a position to produce more satisfactory accounts. He was very glad to hear Mr. Ramsbottom refer in so kindly a manner to their new director, Mr. Bruce. Coming as he did from the Isle of Man, Mr. Ramsbottom had some knowledge of Mr. Bruce. He could only say, as far as he and the board were concerned, that they anticipated that the services of Mr. Bruce would be of very great advantage to them. There was no one in the island on whom the selection could have more properly fallen than Mr. Bruce, where his energy and business habits are thoroughly known and acknowledged.

The meeting then concluded.

THE TRANSVAAL GOLD FIELDS, LIMITED.

The ordinary annual general meeting of the shareholders in the Transvaal Gold Fields (Limited) was held at the Cannon-street Hotel, on Thursday, when Mr. LOFTUS FITZWYGRAM (Chairman of the company) presided.

The SECRETARY (Mr. Arthur B. Atkinson) read the notice convening the meeting.

The CHAIRMAN said: Gentlemen—By the undeserved, the most undeserved, favour of my colleagues, I have to appear as Chairman, and I most deeply regret that my first words must be words of sorrow and words of sadness. Since the issue of our report we have experienced a grievous loss by the death of our excellent colleague and dear friend, Mr. Bernstein. He was, as you know, one of the founders of this company, but you cannot know, as we know, the deep interest he took in our affairs, and the very great ability he showed in their administration. I will not speak of the honourable and distinguished reputation he enjoyed in London as well as in Paris, as that reputation is well known to all at this meeting. I prefer to speak of him as the ablest of directors, and the most kind-hearted and most courteous of colleagues. It will be a long time before his name passes out of remembrance, the affectionate remembrance, of those who, for all too brief a period, were associated with him. I presume it will be your pleasure to take the report as read. By chance I was in the chair at our previous meeting, and I naturally turned back to what I said on that occasion. I find that I then expressed myself very hopefully about the future, and I trust that you will agree with me that those hopes have been realised. As to our present prospects, I may refer you to that paragraph of the report which speaks of a substantial increase in the market value of the shares held by the company. I do not intend to weary you with details of our past operations, it would be injudicious to state publicly our present business, and I will not venture to prophecy, but I will make one prediction which is shared by those far more competent to judge than I pretend to be—namely, that the violent storm that has swept over the Transvaal will ultimately do good, and lead to the establishment of South African affairs, and especially of the South African mining industry, on a more sound and equitable basis. Another reason for not going into details is that I am a great believer in the old Latin adage, *res ipsa loquitur* (the matter speaks for itself), and I trust that you will agree with me that our report and accounts do speak for themselves, and that with no wavering, uncertain, or unsatisfactory voice. As I shall have to go through the report later I would here refer to the accounts, but I think they are so simple and straightforward that hardly any comment is necessary. I need not say (for the reputation of our auditors is very high) that they have been ably gone into, but I may say that they have been very strictly audited, and that, if the auditors have erred, they have (and most properly and judiciously) erred on the side of caution. I ought to say that the work of the auditors has been alleviated by the excellent way our books have been kept by our secretary, Mr. Atkinson, and the members of our staff, and by our books being periodically audited and not left to the end of the year. And now let me sum up the result of our operations during the period under review:—1. And this is, in my opinion, the most important point; this new company has been established on a sound financial basis, and is enjoying a sound financial reputation. We have been instrumental in bringing out several undertakings, and we have only done so after mature consideration and at reasonable figures. We propose to adopt the same course in the future, and we have, therefore, every reason to believe that any ventures brought out by us will be received with favour. 2. We are able to place £30,000 to a reserve fund, and I most earnestly and sincerely hope to see this increased at all possible times and by all possible means. Reserve funds are expedient in all companies, but in financial companies they are positively and imperatively necessary. The great object of a company like ours is to have a good and sound constituency, such as we possess at present, and what prudent investors look at is not only the dividends paid but the resources—the latent resources—of the company, and these have to be gathered during the time of prosperity. 3. We recommend what I think must be deemed a satisfactory dividend. We might have recommended more but we do not think it expedient to divide up to the hilt. I know by experience that over-division is the greatest danger that successfully-established companies may incur. 4. We carry forward a sum equal to one-half of our capital, or, in other words, we have a sum of £450,000 to earn dividends on a capital of £300,000, and the amount carried forward is enough, if so thought fit, to maintain our dividend for 1896 without reference to the profits of the current year. I will now briefly run through the report. The first four paragraphs only repeat what I have already stated the fifth paragraph must be satisfactory to you all. In the succeeding paragraph we give you the names of some companies in which we have an interest, and on some of these my friend, Mr. Secar, who is so well qualified to judge, will speak. The farms mentioned have been carefully selected, and we have every hope that they will be a very profitable investment, as the coal industry is one of great importance. The claims owned by the company certainly stand in our books at most reasonable prices. I would state, in connection with both farms and claims, that they are capable of great possibilities, and that we hope that some of the properties belonging to the company will become of considerable value. We have, and very properly, written off all the costs incurred in prospecting properties which have not proved successful. I cannot, of course, speak of our building site in Johannesburg, but I can speak of the site in Bishopsgate-street, which is a very desirable one. Our auditors, as you see by the report, offer themselves for re-election. The motion, therefore, cannot, of course, come from this side of the table. In conclusion, gentlemen, I can only say that it will be a great pleasure to me to answer any questions; if I cannot, I think my colleagues can, and if they refer to local matters, I am sure Mr. Dettelbach, who has been so long a resident in South Africa, can and will. The mention of this gentleman's name reminds me that it is my bounden duty, as it is my sincere pleasure, to express to him, as I did on a former occasion, the deep thanks of his colleagues, and I am sure I may say of every shareholder, for the great and judicious ability with which he has managed in London the affairs of the company during a most trying year—a year comprising a period of excitement, and closing with some appearance of disarrangement of affairs. On a former occasion I also ventured to tender the thanks of all to Mr. Berlein, our managing director in Johannesburg. I then spoke of that gentleman from what I heard of him; we can now speak of him from personal acquaintance, as he paid a visit to this country in the summer of last year, leaving as his representative in Johannesburg—and a most efficient representative he proved—Mr. Oscar Dettelbach, who, I am glad to say, is in this room to-day. Soon after Mr. Berlein's return to South Africa the crisis, of which we have heard so much, broke out, and Mr. Berlein safeguarded our interests during this trying period in a most efficient manner, which entitles him to our special thanks. There may be, gentlemen, many differences of opinion, but on one point there can be no difference—namely, that this company is fortunate, most fortunate, in having secured the services of such able and experienced gentlemen, and (for, believe me, ability and experience are not everything), such conscientious and high-minded administrators of our affairs. I beg to move the adoption of the report and the balance-sheet.

Mr. SECAR seconded the resolution, and said his task was both an easy and agreeable one. Easy because the report of the directors, the balance-sheet and the profit and loss account, together with the Chairman's observations, left very little for him to say, and agreeable because he thought few companies had produced such startling results during their first year's operations. Virtually they had earned 125 per cent. on their capital, and to prove that this statement was only the actual truth, he would give them the following figures;—The amount to be placed in reserve was £30,000, showing 10 per cent, while the amount necessary for the dividend was £120,000, or 40 per cent. on the capital. Then the managing directors took 25 per cent., which absorbed about £100,000, and the amount to be carried forward was £150,000, or 50 per cent. These figures, added together, amounted to £40,000, or, as he had said before, 125 per cent. on the capital. Referring to the properties held by the company, Mr. Secar, speaking of the West Rand Mines, said that originally they had 228 claims on the farm in Luipaard's Vlei. The district was about 18 miles west of Johannesburg, and 2 miles from the now historical Krugersdoorp. By the absorption of the George and May, which was now included in the company, as well as other holdings, the claims had been increased to 641, and the most recent reports to hand stated that five shafts had been sunk to a depth of 500 feet, and a number of assays made. Upwards of 100 samples averaged 20 dwts. 17 grains, so he thought they would agree with him that they had a property which would prove a very successful mine. The East Roodepoort Deep level and the Nigel Deep were also very hopeful properties, and, as the report said, they were now being worked, shafts having been sunk, &c. Then there was the Transvaal and Delagoa Bay Investment Company. He considered that the managing directors had shown great judiciousness in making the investment, for undoubtedly Delagoa Bay would in the future, and should at the present time, have nearly the whole of the trade of Gazaland, Swaziland, and the South African Republic. The position was much nearer than the ports now used—Durban and Cape Town. The distance to Delagoa Bay from Johannesburg was 349 miles, to Durban 482 miles, and to Cape Town 1013 miles; while Pretoria and Barberton, two very important mining centres, were nearer still to Delagoa Bay. Therefore, a considerable portion of the traffic should come this way instead of going to Durban or Cape Town—in fact, ten times the amount of tonnage would have been conveyed this way under other circumstances. They might also look forward to the neighbourhood around the Bay going up in value, while he should not be surprised if the Governor of Mozambique moved his seat to Delagoa Bay. Mozambique was a very old-fashioned place, and he thought that Delagoa would undoubtedly become the capital of the province in the near future. One other matter he had to touch upon was the farms in the Middleburg district, which were situated in the coal-bearing area. He believed that these would prove a very profitable acquisition, because the other coal mines could not last for ever, while the requirements of the district were greatly increasing. In regard to the remarks he had heard respecting the 25 per cent. paid the managing directors being a large sum, this, he reminded them, was the sum fixed by the agreement in the Memorandum of the Articles of Association, and the directors, therefore, had nothing to do with the matter. It was a legal matter, and the board had simply to carry the arrangement out. But he thought the money was well earned. Messrs. Berlein and Dettelbach had given all their time, intelligence, and skill to the company, with the result that an immense amount of money had been earned. He might tell them that when the assets were taken over by the company they were estimated at a very low value, and there was absolutely nothing to pay for prospecting or goodwill. The amount was put at £105,000, but the board, before adopting the agreement, took the precaution of having the property again valued by one of the best firms, when the amount was given at £140,000, so there was a profit made immediately of £35,000. Touching on the dividend, Mr. Secar considered that those who had the true interests of the company at heart would agree with the board that, in carrying forward so large a sum they were pursuing a proper and conservative policy which they as a financial company should follow. It was wise to always have some money in hand, and so be in a strong position, and although some shareholders who were in the habit of making a profit by in and out dealings might not be so satisfied as others, he was sure that those who intended to retain their interest in the company would agree that the course adopted by the board was a safe and solid one. He had much pleasure in seconding the resolution.

Mr. BEASSON criticised the way in which the profit had been dealt with by the directors, considering that there had been too much caution exercised.

The CHAIRMAN said he could only repeat that he thought it prudent to keep a large reserve fund, while he also was of opinion that the dividend of 40 per cent. was a large one.

The resolution was then carried unanimously.

The CHAIRMAN next moved that a dividend at the rate of 8s. per share, less income-tax be declared for the period ending December 31, 1895, should be paid.

Mr. DETTELBACH seconded the motion, and it was agreed to.

The auditors, Messrs. Cooper Brothers and Co., were reappointed, and a vote of thanks to the Chairman terminated the proceedings.

The BALAGHAT MYSORE MINES (LIMITED) has sold the gold obtained during the month of February, which realised £743 1s. 8d.

AUSTRALIAN GOLD RECOVERY COMPANY, LIMITED.

The ordinary general meeting of the shareholders of the Australian Gold Recovery Company (Limited) (MacArthur-Forrest process) was held, on Thursday, at the Cannon-street Hotel, E.C., under the presidency of Mr. ROBERT SMITH, J.P.

The SECRETARY (Mr. L. J. Langmead) read the notice convening the meeting.

The CHAIRMAN said: Gentlemen—You will remember that at the last meeting I had to apologise for the absence of your Chairman (Mr. McCulloch). I regret having to do so again, as he has been unavoidably called away to South Africa. I have also to apologise for the absence of Sir Charles Cranford and Mr. MacArthur, the latter being in South Africa. I have further to express our regret in not being able to call you together sooner; but, as I explained when I had the pleasure of last addressing you, this is owing to the fact that the accounts, which have to be made up to September 31, could not be completed sooner for want of further information required by the auditors from the other side. This will be remedied in future, as we are holding an extraordinary meeting at the close of this for the purpose. We feel, on the whole, that the accounts are not unsatisfactory. As you will observe, we have turned the corner, and, for the first time since the formation of the company, we show a profit instead of a loss. The financial difficulties which I referred to last year as affecting the whole of Australia have not altogether passed away; but there are signs of a general improvement, in which we feel sure we shall participate. Turning to the colony of Queensland, the year opened with encouraging prospects, which fully justified the expression of the hope that the year would be a better one for the company in Queensland than was the last. This has proved to be correct. Our work was hindered in the earlier part of the year, owing to the excessively wet season. Our returns, however, have improved, and we are satisfied that we shall be able to obtain still better results in the future. In the immediate vicinity of our works at Charters Towers plants have been erected at the Columbia Mine, Mosman's Creek, and at Rishton, and other plants are in course of erection. At the first three named the companies have treated concentrates and tailings with pronounced success, and have completely demonstrated the facility of working the process, and it seems to us highly probable that all the accumulated tailings lying at the various creeks will come under treatment. The ground adjoining the Columbia Mine has been leased, and a strong syndicate has been formed to sink a shaft to reach the Columbia reef. It is their intention to adopt the dry crushing cyanide plant advocated by the company for the direct treatment of ore. Mr. Gordon Wilson, our manager at Charters Towers, also writes that he has reason to hope that arrangements will soon be effected with some of the most important millowners on the field for the treatment of their ore, and to see other large plants in operation at an early date. At Croydon, the Quartz Crushing and Gold Mining Company has operated with most excellent results. The figures are given to you in the directors' reports. Messrs. Forsythe and Richardson, of the Pioneer Mill, have treated over 6000 tons for 3236 ounces bullion, and John Milne, of the Highland Mary battery, 2715 tons for 2623 ounces bullion, and Messrs. Blunt and Forbes, of the Golden Valley Works, have treated over 2000 tons for 906 ounces—all under royalty to this company. I mention these figures, among others, as showing that the process is making steady and satisfactory progress in this part of Australia. Turning to the Cumberland Gold Mining Company, the work has been carried on here with gratifying results, the tailings treated amounting to about 4500 tons, the yield being about 3400 ounces bullion. You may remember we have half-interest in the results here. Experiments are also being made with the Nil Desperandum Company's ore and tailings. Our work has extended to Clermont, where the Star of Hope Prospecting Company has a cyanide plant of a capacity of 300 tons almost ready to commence operations; and Mr. Gordon Wilson tells us that he believes other mines in this district will soon follow suit. At Cloncurry, too, the process will shortly be in practical operation, where the gold from the Gilded Rose Gold Mining Company's tailings is very fine, and cannot be saved by simple amalgamation. The tailings, however, are decidedly rich, and readily amenable to cyanide. Their successful manipulation will probably lead to the reopening of the mine and mill, and will thus be productive of much good to the locality generally, as well as, I hope, to ourselves. At Rockhampton we are in a treaty for several large heaps of tailings; and, generally, from this part of the colony we may look for a sound advance in the company's business. In Victoria, New South Wales, and South Australia our progress continues to be slow, largely owing to the conservative spirit of the members of the mining industry there, who have hitherto failed to realise the importance of cyanide in the economical treatment of their ore. We are, however, not losing sight of these fields, and the progress we are making elsewhere is bound to have its effect at no distant date. In New South Wales some thousands of tons of tailings have been acquired by a syndicate in which we are interested, assaying 5 dwts. to 7 dwts., which shows what is being lost for want of enterprise in this colony in adopting the cyanide treatment. The experiments which have been made on these tailings conclusively show that they can be treated most profitably. Now, as to Western Australia. I told you at the last meeting that this field was destined to play a part second to none in the gold production of the world, and I think my prophecy is coming true. I also said then that this field would probably prove the best one for the company's operations in Australia. There can now be no doubt as to this. Our progress up to the present has necessarily been slow, owing to the time required to develop the mines and extract the ore; also the difficulty of transport and scarcity of water. I am glad, however, to say that these troubles are being overcome, and as the ore is produced so the necessity for cyanide must arise. Those interested in mining have also been too busy in their endeavours to float their leases and make money in scrip transactions rather than give the necessary attention to the opening up of the mines and obtaining the best means for the treatment of their ores. There can, however, be no doubt as to the necessity and suitability of our cyanide process, and we have already made several royalty contracts in Western Australia, amongst them one with the Hannan's Brownhill Gold Mining Company (Limited). In connection with this company, it has adopted our recent patent barrel amalgamation and cyanidation plant, which we have had specially designed with the view of minimising the use of water. The mining companies of West Australia are watching with the greatest interest the results of the working of this plant, which has just recently been started, many of them having deferred ordering their machinery until the results are known. From our information, we have every reason to believe the results will be most satisfactory, and lead to a general adoption of this plant throughout Western Australia. In view of the general scarcity of water in this colony, the immense importance of this new plant cannot be overestimated. There is no doubt that the litigation in connection with the patents has materially interfered with the progress of our work throughout Australia, but it looks as if our troubles are nearing an end. As you are aware, the judgment of the Court of Appeal in England has materially strengthened our position, and we have taken steps to amend our patents on the lines therein indicated. We have already secured the amendment of our patents in Queensland, West Australia, South Australia, and Tasmania, and have lodged our applications for Victoria and New South Wales. Our position is further strengthened by the recent powerful American decision in connection with the Gold and Silver Extraction Company of America, which holds the kindred patents for the United States, and which I will now read to you:—"Substance of decree in case Gold and Silver Extraction Company of America (Limited) against Mercur Gold Mining and Milling Company, adjudged and decreed that letters patent to MacArthur-Forrest, May 14, 1889, for improvements in process of obtaining gold and silver from ore, and patent to MacArthur December 24, 1889, for improvements in metallurgical filter, are good and valid; that plaintiff is entitled to exclusive right in and under said letters patent; that the entire title to said letters patent is vested in plaintiff; that defendant infringed said patents by using same conjointly, and that defendant be enjoined and restrained from using said patents, or either of them, or any process or improvement similar to them or either of them, and from imitating same or either of them during the term of said letters patent. Court not in session until next Monday, when decree will be entered." A stronger decision than this could not have been invited, and you all know the weight which an American decision carries all over the world on patent questions. In the report submitted we have referred to our flotation of an important mining property in New South Wales. The name of the company is the Cobar Gold Mines (Limited), having a capital of £200,000, of which £175,000 has been issued and £30,000 subscribed for working capital, and £25,000 held in reserve for the same purpose. We took in hand the flotation of this property on the strong recommendation of our Australian advisers. The properties are situated at Cobar, New South Wales, and consist of about 40 acres, and are traversed by exceedingly large reefs. The whole of the properties have been carefully examined and most favourably reported upon by eminent experts. The features of the property are the large body of ore, reefs, varying from 4 feet to 20 feet, the remarkably cheap working facilities, and the peculiar adaptability to treatment by cyanide. I may mention that an important banking corporation has taken a large interest in the company, and the whole of the money has been subscribed. In connection with this business we have secured a substantial holding for this company, and what is better still, without entrenching on your funds. We shall be greatly disappointed if our holding does not turn out a very valuable asset for the company. Well, I think I have but little more to say: but as regards our future, I should like to convey the views of the board, and which I cannot do better than by quoting to you the language of our colleague, Mr. Fowler, at Adelaide. He says:—"I look forward to a period of increased mining activity, and the prospects of the company for the ensuing year look brighter than at any previous part of its history." Before concluding, I wish to express the great regret of my board at having to accept the resignation through ill-health of our colleague in Australia, Mr. George Swan Fowler, who, from the initiation of the company, has taken the deepest interest in our affairs; but we are glad to tell you that we were fortunate in being able to secure the services of his son (Mr. James B. Fowler), who succeeds his father at the board, and holds the company's power of attorney for the colonies. I can say as regards this gentleman that we look upon him, from his great ability and warm interest in our affairs, as a tower of strength as our Australian director. Before sitting down I should also like to convey to you our high appreciation of our officers in Australia. They have, one and all, the interests of the company at heart; they work with a will; they know the goodness and the value of the process—what it can achieve and what it is capable of doing. Though I would like to mention them all by name to you, as deserving of individual praise, I would refer to Mr. Gordon Wilson, Mr. Peter Macintyre, Mr. Williamson, and Mr. Charles McArthur. I beg to move the adoption of the report and accounts. (Applause.)

Mr. WOLSTAN TRUBSHAWE seconded the motion.

Mr. FLOWER: Have you had any negotiations with Hannan's Reward? Have they adopted the process in a similar way to Hannan's Brownhill?

The CHAIRMAN: I do not think we have had direct negotiations with them, but there is no doubt that all these companies are waiting to see the result of this amalgamation process as adopted by the Hannan's Brownhill. I think we shall have the result of it in the course of the next few days.

The motion was carried unanimously.

Mr. FLOWER proposed the re-election of Sir Charles Cranford, Bart., and Mr. Robert Smith as directors of the company.

Mr. WINGROVE seconded the motion, which was unanimously agreed to.

The auditors (Messrs. Brown, Fleming, and Murray, and Messrs. Ford, Rhodes, and Ford) were reappointed.

An extraordinary general meeting was afterwards held, at which the following resolution was passed:—"That the Articles of Association be altered in manner following: In the last line of Article 123 the word 'four' shall be substituted for the word 'three.'"

A vote of thanks to the Chairman and directors terminated the meeting.

POLBERRO MINE COMPANY.

A sixteen weeks' meeting of the adventurers in Polberro Mine Company was held yesterday, at the offices, 37, Walbrook, Mr. J. B. REYNOLDS presiding.

The SECRETARY (Mr. Harvey) read the notice convening the meeting.

The CHAIRMAN said: Ladies and Gentlemen—Since the last meeting of shareholders, we have met with unexpected and almost irreparable loss by the death of Captain Charles Thomas. Everybody who knew him will acknowledge that he was a man of unimpeachable integrity, ability, and honour, and the widespread grief caused by his death was only natural. Fortunately, however, for this company, he was associated with local officials in whom he had the greatest confidence, and of whom he often spoke to me privately in high terms of commendation, and it is well known that Captain Harper, who acted as under agent, is a gentleman of intelligence and decision, and in every way equal to the position which he has so worthily held. Under these circumstances the committee did not think proper to fill up the vacancy caused by Captain Charles Thomas's decease, but preferred leaving matters for the time being in the hands of Captain Harper. It is right to say at this point, however, that extended operations are not contemplated by any of the shareholders during the present severe depression in the tin market, and it is absolutely necessary that whilst this depression lasts expenses should be kept down to the lowest possible limit. If they are not so kept down this company will not survive the crisis through which Cornish mining is now passing. When I last met you, with Captain Thomas by my side, I was extremely hopeful with regard to the future of tin, and Captain Charles Thomas himself was constantly in the habit of acknowledging that upon the future of the tin market the prosperity of this company, and of Cornish mining generally, entirely depended. He said, and said truly, that with the present price for tin the future of Cornish mining was dark in the extreme, and I think he agreed with me in the view I persistently expressed that to raise more tin than shareholders were obliged to do in the ordinary working of their mines was an act of folly unworthy of business men. I cannot understand how so many still find delight in raising tin at just the price they will be able to receive for it, or worse still, raising tin at an absolute loss, and I will go farther and say that to me it is a very questionable policy exploring at all with the knowledge that you may not find the tin, or if you find it you may have to sell it much below the cost of production. Now, ladies and gentlemen, I have been thus explicit because I wish it to be fully understood what is the uppermost thought in my mind to-day. In the past, as to the tin market, I have been too sanguine, and whilst I would not on any account err in the other direction, because a mistake in the other direction would be fatally disastrous, I would endeavour so to advise you that you may thoroughly protect your own interests, and be securing to yourselves, permanently, any advantage which can be gained out of this, as I consider it, magnificent property. I want you to bear in mind Captain Thomas's repeated declaration—viz., that the mine was not a speculation in the ordinary sense of the term, but that it was as much a certainty as anything I ever knew of this description. These expressions of opinion are in print, and were uttered publicly, and when we remember that they were endorsed by the late Captain William Vivian, and that they are being endorsed now by men who are fully capable of giving an opinion, we must be careful what we are about as to the future. Another fact which we must face is this, that the Cost-book System, rightly or wrongly, is utterly discredited. My personal views are altogether in favour of it, conducted as it is by us, but I do not represent in this matter the judgment of the public, neither am I able to say that the Cost-book System is not open to terrible abuse, involving unknown liability on the part of shareholders. All I am able to assure the shareholders in this company is that if anything happened to me another element might be paramount in this company, which, in spite of the present officials, would run Polberro into debt, and, therefore, into considerable danger. Now, ladies and gentlemen, these are very serious reflections, and they press very heavily upon my mind, and I have resolved to tell you openly that if you honour me still with your confidence you will resolve to lose no time in placing yourselves in an impregnable position as far as future liability is concerned. My recommendation is this:—(1.) That we abandon the idea of continuing as a Cost-book company.—(2.) That Polberro should be worked as a Limited Liability company.—(3.) That pending the carrying on of our business as a limited company, the expense should be reduced to a minimum.—(4.) That we should not attempt extensive operations with Limited Liability until such time as the tin market justifies the proceeding. We may say that at present for all practical purposes we owe nothing, for the small balance due to the bankers is of no moment, especially seeing that we have against it valuable assets which we shall turn into cash, and which we have not mentioned, to say nothing of the machinery and plant on the mine. I am not prepared at this meeting to say that we must stop the driving of the 50 or the 26 east, because it would appear that probably we are just on the eve of meeting with a large deposit of tin. Every indication points to that result. For me to advise you, therefore, to suspend these points previous to adopting Limited Liability, would expose me to a criticism which I should not care to face. I have always been in the habit of taking the shareholders into the most perfect confidence, and have told them everything I have had to tell, and the result has been very hearty and cordial support, the like of which I have never known surpassed; therefore I shall not do so or say anything in the future which I do not consider strictly in conformity with their interests, and no personal considerations will weigh with me, excepting, of course, my interest as by far the largest shareholder in the mine. I am not a stranger to these periods of adversity and depression. I have passed through storms before, and on previous occasions have been caught in calm and stagnant times like the present. In the past I have succeeded, and in the future I have no doubt I shall meet with like success. I must refer to my management of West Kitty in the years preceding 1879, and I may say that the principles upon which I acted in that case were precisely similar to the principles which I intend to act upon in this. The result was, as far as West Kitty was concerned, that the shareholders who elected to do exactly as I suggested made an enormous profit upon their holdings. I think that those who stand by Polberro now will be more richly rewarded, if they simply follow my lead. There are some of our shareholders, I am quite ready to admit, who ought not to be called upon to pay any further money after this call to-day, against their judgment or inclination. They have borne a great burden up to the present with great cheerfulness and confidence, and it is not fair to say to them you must either go on paying or go out. I am free to confess that my present action has very particular reference to such shareholders; in fact, if there are any more than others whose interests I wish to guard it is those shareholders who have felt most severely and terribly the crisis through which we have passed, and who, nevertheless, have acted all along with a most perfect honour. Now, having said so much, let me call your attention to the mine itself. All you who know anything about mining must admit that the immediate prospects of Polberro are exceedingly fine. It is folly to argue against such a proposition. Wherever the water may be coming from in the 50 fathom level, it is clear that the water must be coming through the celebrated Pink lode, which must be of a very porous description. It may be that we have been emptying out, perhaps, caverns of water. At any rate, no miner can dispute the prospects immediately before us. With a favourable turn in the tin market, which, I believe, is sure to come, and perhaps soon, I leave you to judge with what ease we shall most likely be able to get the little money we require for stamping operations, and also for removing Turnavore engine to another shaft, or resuming work at Turnavore itself. It is a satisfaction to be told that our pumping power is equal to any requirements to which it may be put. Gentlemen—If, as I hope it will, it is soon to fall to my lot to address you as a large company with Limited Liability, I feel confident that I shall be able to point with a very considerable degree of pride to extensive operations, which will result in the return of more than satisfactory dividends to you; but do not let us hurry matters, or, at any rate, do not let us be precipitate. Let us give the committee full power to-day with regard to future operations under the Cost-book system, on the understanding that under this system they will not spend more than is called up this day—1s. per share—without our knowledge and sanction, and that they will at the proper time take such steps as will ensure the successful working of Polberro on a properly extensive scale, with Limited Liability. I do not wish the limited company to have to pay any back liabilities incurred by working the mine, but to start fair with our machinery and plant, and with a clear book. The terms and conditions under which the limited company will come into possession, will, if you adopt my views, be fully laid before you in due course for your consideration and adoption. The Chairman concluded by moving the adoption of the report and accounts.

Mr. A. STRAUSS said he had much pleasure in seconding the resolution and expressing his thanks for the lucid speech of the Chairman. In that speech Mr. Reynolds stated that certain resolutions would be submitted, the carrying out of which would mainly depend upon the future price of tin. His (the speaker's) prediction at the last meeting that the price of tin would gradually improve had turned out to be correct. For the last two or three months they had reduced the total supply, and would do so again this month. This favourable turn had not arisen from a diminution of supplies, but from largely increased consumption. The consumption had increased for the last 12 months by 6000 tons, or 10 per cent.; and this had taken place during a lull in the tin plate trade, which proved that the metal was being put to other uses. As soon, therefore, as the tinplate trade revived, this increased consumption would be even larger. There were indications now that the heavy supplies from the Straits might possibly diminish. The official reports seemed to confirm this view. In a report published some months ago the following statement appeared:—"Owing to the fall in the price of tin Captain Ah Quee, it is reported, is going to close shortly two of his mines in Larut, thus throwing out of employment coolies numbering between 2500 and 3000. If the work is not resumed on these mines before the Chinese new year the police will have their hands full. Ah Quee's Mine at Kota is one of the largest in the world, employing between 5000 and 6000 men, and is one of the richest. It is reported that owing to the fall in the price of tin, the miners in Perak have memorialised the Government to reduce the rate of duty charged." In another report, which appeared in the *Straits Times* of February 23, 1896, the following statement was made:—"Some time ago the Government suggested to the miners in Larut, in reply to their memorial for a reduction of the duty on tin, that they should reserve the tin until the market value goes up again. The Chinese in Kinta are unanimous in declaring that the past year has been a very bad one as far as mining is concerned. A number of small capitalists have gone to the wall, while others attempt to escape the same fate by meeting their liabilities with from 40 to 50 per cent." What with the increased consumption, and the certainty of a diminished supply,

the price of tin was as sure to rise as night followed day. (Cheers.)

Mr. G. C. HANCOCK supported the motion, which was carried unanimously.

The CHAIRMAN proposed—"That a call of 1s. per share be made, payable on or before April 24."

This was seconded and agreed to.

On the motion of Mr. FIELD, seconded by Mr. JACOB, it was resolved—"That if the committee deem it advisable to change the constitution of the company from Cost-book to Limited Liability, they are hereby recommended to convene a meeting of shareholders, at such time and place as they may think best, to consider such scheme as they may have to recommend."

A further resolution to the following effect was passed:—"That, in the opinion of this meeting, it is not advisable to incur more expense than is absolutely necessary, excepting at the 26 and 50, before it is demonstrated that the tin market is in a position to warrant a different policy; and that the lords be communicated with at once, and asked to permit a temporary suspension of operations in the interval of changing from Cost-book to Limited Liability as soon as the costs provided for at this meeting have been incurred."

It was also resolved—"That, notwithstanding the foregoing resolutions, should an important discovery be made in the 50 or 26 east before operations are temporarily suspended, the shareholders should be called together to consider the effect of such discovery upon their future proceedings."

The usual votes of thanks having been passed, the proceedings terminated.

LUIPAARD'S VLEI ESTATE AND GOLD MINING COMPANY (LIMITED).

An extraordinary general meeting of the shareholders in the Luipaard's Vlei Estate and Gold Mining Company (Limited) took place on Wednesday, at the Cannon-street Hotel, when Mr. H. G. H. Norman presided.—The Chairman, in moving that the resolutions for the reconstruction of the company be confirmed, said they would see by the notice sent out that in deference to the wish of the shareholders, the directors had approached the Consolidated Gold Fields of South Africa, with the result that they had withdrawn from their guarantee, and in consequence the whole of the 70,000 shares might be taken up by the shareholders themselves.—Mr. Hoskyns seconded the resolutions, and they were carried *nem con.*—The Chairman next moved that the liquidators be authorised to distribute in specie amongst the shareholders the whole or part of the 140,000 shares to be allotted in pursuance of the agreement between the old company and the new company.—Mr. Scott seconded the motion, and it was agreed to.—Mr. De Pass proposed that the remuneration of the liquidators be fixed at 150 guineas.—Mr. Crowther seconded the resolution, and it was carried.—The Chairman announced the receipt of a cablegram from the mine, which was interpreted as follows:—"Clean up not yet finished, treated 920 tons, assays average per ton 10 dwts. Expect the result will be 70 per cent. extractions with rock breaker only. There is a great improvement. Second half treat rolls crushing ½ inch, the result will be 80 per cent."—The proceedings then terminated.

UNION STEAMSHIP COMPANY (LIMITED).

The ordinary meeting of this company was held on Thursday, at Winchester House, Sir F. H. Evans, M.P., in the chair. The directors recommended a dividend of 10s. per share on the fully paid shares, and 5s. on those with £10 paid, which, added to the interim distribution, made a total for the year of 4 per cent.—The Chairman, in moving the adoption of the report, said that when they met last year he ventured to congratulate the shareholders upon the improved position of the company, and he thought he could claim from the accounts now submitted that the improvement he then foreshadowed had been fully borne out by what had passed during the year under review. They had a very difficult trade to deal with in South Africa. Unfortunately, although there had been a considerable increase in the output of gold and diamonds there, there had been "almost a decrease" in the other productions of the country. They had had to send an increased tonnage to South Africa to carry the Durger cargo; but he regretted to say that there had barely been an increase at all in the cargo homewards. It was disheartening to see their ships leaving English shores fairly full of passengers and cargo, coming back, in many cases, practically empty, thus throwing the whole cost of the entire voyage upon the outward earnings. Sooner or later, however, the directors hoped for a change in this respect. The dividend the directors recommended was satisfactory—at any rate in shipping matters. They had only to turn to the accounts of many other companies which had been submitted within the last two or three weeks, to know that in many cases no dividend whatever was paid to the shareholders; in other cases the dividends paid were not out of the profits but out of the reserve fund, which the companies had been able to lay by in former years. The gross receipts—£948,000—showed an increase of over £150,000 on those of last year. The general expenses were £40,617 as against £42,163. The net result was a balance of £19,600, as compared with £1500 in the previous year. They must continue adding to their fleet, or they would be left behind by their competitors.—Mr. W. M. Farmer seconded the motion, which was carried.—At an extraordinary meeting which followed, resolutions were passed altering the Memorandum of Association, extending the powers of the company.

LUCKY GUSS GOLD MINE (LIMITED).—The first batch of (allotment) letters have been quoted.

FATAL COLLIERY EXPLOSION.—An explosion of firedamp occurred yesterday in a coal mine at Villanueva, Spain. Four men were killed and several injured.

NEW ISSUES.

BROWN HILL NORTH (HANNAN'S) (LIMITED).

The capital of this newly-formed company is £150,000, in shares of £1 each, of which 50,000 are set aside for working capital. It has been formed to acquire and work two gold mining leases, Nos. 1012 E. and 1003 E. of 24 acres each, at Hannan's Find, Western Australia. The property, which is situate within 700 yards of the famous Hannan's Brownhill Mine, has been in course of development during the past eight months by the Brownhill Mining Syndicate (Limited). In his report upon the property, Captain Oats states:—"The developments on No. 1012 are two shafts. No. 1, known as Hunt's shaft, is down 100 feet, with a crosscut to the west of 15 feet, and to the east 30 feet. The formation of ore body in this shaft is fully 30 feet wide, and traverses the whole of the property, and assays taken from this level go 3 ounces 18 dwts. 18 grains to the ton. The whole of the formation is gold-bearing, and the appearance of the lode equals anything I have seen on the field. Splendid stratification, giving every evidence of strength and permanent existence of lode. I would still recommend driving. Bearing of lode 25° west of north. . . . . I consider these leases a most valuable property and a perfectly safe mining investment. The position of these leases is about 25 chains due north from Brown Hill, and right in the belt of the best of the auriferous country." More recent news will be found in the prospectus advertised elsewhere.

UNITED NEW ZEALAND EXPLORATION (LIMITED).

The capital of this company is £250,000, and it has been formed to acquire mining properties, rights, and interests in the colony of New Zealand. The directors have secured the exclusive services of Mr. Henry A. Gordon, M.A Inst.M.E., inspecting engineer to the Government Mines Department, and of Mr. James Park, F.G.S., late director of the Government Schools of Mines, Thames.

MINING IN CORNWALL AND DEVON:

NOTES ON MINING IN THE WEST.

(FROM OUR SPECIAL CORRESPONDENT.)

THERE is as yet no great increase in the volume of business which is being transacted on the Cornish Share Market, but the decrease which has taken place in the stocks of tin last month coming on the top of a substantial decrease in February has had a good effect, and is regarded as an indication of the ultimate improvement which is to take place in the tin market. In spite of the numerous critics of the mine and its executive, Dolcoath shares are still the most popular, and the ready manner in which they have been dealt in during the last few weeks, when everything else has been exceptionally dull, is the public reply to the few who criticise. Shareholders are just now waiting for some announcement from the directors as to whether they may expect that little interim dividend which was spoken of at the general meeting, when it was said that the directors hoped to declare an interim dividend at the end of March. The directors' meeting is due in a few days, and then we may hear something more about it. There is nothing like the tangible evidence of a dividend to impress on the public the fact of a prosperous concern, and until they receive their dividend warrants we suppose there will be some people who will continue to doubt that the mine is again working at a decent profit in spite of the adverse circumstances.

THE directors of the Basset Mines (Limited) have been fairly busy during the last week, and by this time the shareholders will have received their letters of allotment. We hear that it is proposed to offer some shares to the public at a premium of 5s.—£1 shares for 25s. But the executive have been discussing some very important proposals for the future working of the concern. One of the most interesting is in relation to the new pumping gear which is to replace the engine which was burnt out at Marriott's. Mr. Oats, the Chairman, has been making some inquiries as to the possibility of introducing the principle of triple expansion into the Cornish pumping engine, and with, we believe, very satisfactory results so far as they go. Triple expansion has been adopted in every other class of engine, and an eminent consulting engineer has been in Cornwall for some days, and has had interviews with the directors, with the result that he has demonstrated the value of the proposal, and has indeed claimed that, roughly speaking, a triple expansion Cornish engine would do a duty of 115,000,000 gallons as compared with 45,000,000 gallons now being done. The difficulty in the way is the initial cost, which would be heavy, and we believe we are right in saying that the directors have not yet absolutely decided on what they will do. The bait which was offered in the appeal for tenders for driving 2000 fathoms of ground was not sufficiently attractive in the quarter for which it was intended. It had been hoped that a German firm, who had prided themselves on the rapidity of their drilling, would have entered into the competition, but they were not to be drawn. The directors are anxious to have a thoroughly good and modern air-compressing plant laid down, with power sufficient to drive all the rock drills which they may require, and they are not going to rush into any obligation without making thoroughly sure of their ground. There is no doubt, however, as to the vigorous character of the policy which they have adopted, and it is one which is sure to commend itself to everyone who knows anything at all of the requirements of Cornish mining. The mine has suffered from a slight fire which occurred in front of one of the engine-houses in the West Basset part of the mine on Wednesday night, but fortunately the engine itself is undamaged, and the working will not be in the least interfered with.

KILLIFRETH committee have done wisely in appointing Mr. C. V. Thomas as the solicitor to the company. Mr. Thomas has worked so hard and so successfully in floating Dolcoath, and in bringing the Carn Brea and Tincroft scheme within reasonable distance of accomplishment, that he will be in a position to give the Killifreth committee some sound advice, and we shall be surprised if he does not succeed in bringing out a Limited company for Killifreth which will command hearty public support.

WHEAL AGAR meeting next week is being anticipated with considerable interest, but we fancy there will be a much more satisfactory result from the action which Lord Robartes is reported to be taking in giving formal notice to re-enter the sett, than to any outcome of the meeting. Mr. Strauss, M.P., has issued a circular to the shareholders, in which he explains the action taken by him, with a view to compelling a meeting to be held, and states that a large majority of the shareholders have declared themselves in favour of his proposals for arbitration and amalgamation. Owing to his Parliamentary duties he will be unable to attend the meeting, but Mr. Thurston C. Peter will attend on behalf of those shareholders who are in favour of a "speedy and equitable settlement."

FROM the elaborate statement as to the present condition of the Polberro Mine, which Mr. J. B. Reynolds laid before the shareholders at yesterday's meeting, it is obvious that the proprietary have little cause for anxiety as to the future of their property. There are several points in the mine which are of great promise, and which, under judicious development, should afford sufficient metalliferous material for successful working for a considerable time. The most important factor in the company's future is undoubtedly the price of tin, and all speculations as to what fortune will eventually fall to the shareholders are closely bound up with the forecasts which have been made from responsible quarters as to the outlook in the tin market. Mr. Strauss' utterances to this effect were particularly pointful and encouraging. There is no unreasoned optimism in the view that tin can hardly remain for long at its present low value, and in observing rigorous economy in all branches of their expenditure, the management are certainly doing their utmost to turn to advantage the conditions under which the work is being carried on. Imbued as they are with a close attachment to the methods of work which have obtained in Cornwall for so long, it is hardly a matter of surprise that the shareholders should experience considerable reluctance in the necessity—or, at least, the partial necessity—which has arisen for recourse to the Limited Liability system. Their acceptance of the recommendation carrying the change was a very wise one, seeing that it was made after the most careful consideration by those who best know the condition of the property, and are most able to speak authoritatively as to the manner in which the mine, under the particular conditions connected with Polberro, can be most successfully carried out.

THE Northumberland Miners' Conciliation Board on Thursday met at Newcastle to consider the wages question, and the umpire decided that there must be a reduction of 2½ per cent.

COMPANY FINANCE.

Reports, Balance Sheets, Dividends, &c., of Mining and other Companies.

WARATAH GOLD MINES.

A circular to the shareholders states:—Since the annual meeting of the company, which was held on December 17 last, good progress has been made in the development of the mine, and the directors have now much pleasure in submitting particulars to shareholders. The hopeful views expressed by the Chairman at the annual meeting, in regard to the future of the mine, have been more than justified by the results of recent developments. The mine manager's report for the year ending December 31, 1895, states:—"That the main shaft has been sunk 227 feet during the year, making a total depth of 414 feet. Levels driven 259 feet, and 370 tons of ore raised, of which 190 tons is now at grass, estimated to be worth £16 per ton, and he has every reason to believe there is a great future before the mine, and that the lode is one of the strongest on the Croydon Gold Fields." The following cables have been received by the company:—January 13. "Struck a rich body of ore in the sink (underlie shaft). Assay 11 ounces gold and 400 ounces silver. Value per ton, £97. Size of this vein 19 inches. You cannot over estimate this find."—January 21:—"Contract 100 feet completed. Have let a fresh contract 100 feet. Prospects are encouraging."—February 3:—"My cable 13th ulto. Sunk 35 feet on the vein; same quality as last."—(*i.e.*, value £97 per ton).—March 11:—"15 tons ore raised, value £97 per ton (approximate). Stopes on the 442 feet level looking well. 230 tons of ore on the dump. Water is giving much trouble. It is an unusually wet season. Developments opening up splendidly." It was stated at the general meeting that a shipment of ore was then in transit for treatment in London. This has since been sold, and realised £16 11s. per ton gross. The general manager writes that when he was down in the mine, on January 10 last, gold and silver were quite visible in the ore by candle light, and that the reef measures from 1 to 2 feet, and looks solid and likely to make. This stone assayed 10 ounces 15 dwts. 14 grains gold, 409 ounces 6 dwts. 6 grains silver, value £96 18s. 7d. per ton. Mr. Rands, the Government Geologist, says he considers the Waratah and Queen line the backbone of Croydon, and that the stone above mentioned is the best he has seen in the district. It will be seen that the prospects of the mine improves with depth. It is estimated that the underlie shaft is now down over 500 feet, and it is evident that the rich strike of ore, mentioned in the cablegram of January 13, continues in the shaft, as shown by the cablegram of March 11. Extract from *Croydon Mining News*, January 16:—"The Warden, F. P. Parkinson, Esq., in his annual report to the Minister of Mines for 1895, just published, says:—'The Waratah Mine has been doing excellent work since the beginning of the year. About 200 tons of excellent looking stone are now at grass. I saw some stone that had been struck a few days ago, at a depth of 424 feet on the underlie, and it was the best I have seen from the mine.'" Instructions have been given to the general manager at Croydon to ship a large parcel of the rich ore recently struck, the result of which will be promptly furnished to you. Your directors have for some time had under consideration various methods for the treatment of the ore, and have decided to erect a stamp mill at the mine with special appliances for the extraction of the bulk of the gold and silver contained in the ore. Concentrating appliances of the best description will form part of the mill plant and the concentrates and slimes will either be treated at the company's mill or shipped for sale as may be found most profitable. It may be mentioned that the ore is not refractory, and the only difficulty in treatment is caused by the large proportion of silver to the gold contents, the ratio on an average being 1 ounce of gold to 30 ounces silver. The experience of working other mines in Queensland yielding ore of a similar character has proved that the proportion of gold to silver in the ore increases as greater depth is attained; this is also the case in the Waratah Mine, and it is expected that the proportion of gold to silver will continue to increase with further sinking; the greater part of the gold and silver can then be saved by the ordinary process of amalgamation

THE GOLDEN HORSE SHOE GOLD MINING COMPANY.

A circular to the shareholders, dated 9th inst., runs as follows:—The attention of the directors having been called to the publication of a cablegram in this day's financial papers, which is calculated to inflate the value of the shares, they take this opportunity of stating that their mine manager has always had express instructions to cable at once any news as to important developments, and in view of the fact that no information whatever has reached them regarding the rumoured discovery, they meanwhile discredit the report, but have cabled their manager to deny or confirm it immediately. The directors further take this opportunity of stating that the result of three trial crushings has been as follows, as reported by cablegram:—1st crushing: "A trial crushing of 7 tons has yielded 11 dwts. per ton; not satisfied, everything being new. Intend crushing further parcel 10 tons. Stuff caught on the blanket assays 1 ounce per ton of 2240 lbs. An average sample of the tailings assayed 6 dwts. per ton."—2nd crushing: "Crushed 10 tons, 11¼ dwts. per ton, without tailings blankets."—3rd crushing: "Clean up from 12 tons gave 4¼ dwts. per ton, tailings 6¼ dwts. per ton."

THARSIS SULPHUR AND COPPER COMPANY.

The report of the directors states that the net profits for the year ended December 31, 1895, together with the balance of £14,948 2s. 9d. brought forward from 1824, as shown by the profit and loss account, amounted to £234,439 3s. 2d. The directors recommend:—(1) That the sum of £218,750 be appropriated to the payment of a dividend of 7s. per share, equal to 17½ per cent. on the capital of the company, free of income-tax, payable on or after Friday, the 8th day of May next; and (2) that the balance of £15,689 3s. 2d. be carried forward to the credit of the year 1896. The dividend will be paid as follows:—(1) To holders of nominative shares by dividend warrants, payable at the Bank of Scotland, Lothbury, London. (2) To holders of coupons of shares to bearer, at the head office of the company in Glasgow. These coupons to be transmitted direct or through any banker. Five days are required for the examination of the coupons. Payment will be made by a cheque on a London bank.

— The CHAMPION REEF GOLD MINING COMPANY OF INDIA (LIMITED) have sold the gold produced in February for £24,081 4s. 3d.

— The NUNDYDROOG COMPANY (LIMITED) have sold the gold obtained during the month of February, which realised £12,538 11s. 8d.

— The MYSORE GOLD MINING COMPANY (LIMITED) have sold the gold obtained during the month of February for £28,379 17s.; the January balance of 2850 ounces realised £11,254 12s., and the 7000 ounces, referred to in the directors' circular to the shareholders dated February 12, realised £27,596 5s. 7d.

EXPORT AND IMPORT TRADE.

THE BOARD OF TRADE RETURNS—MARCH TABULAR STATEMENT.

Specially compiled for "The Mining Journal" from the Board of Trade Returns.

THE Imports for March amounted to £38,344,750, against £35,959,890 for the same month last year; an *increase* of £2,384,860. For the three months ended March 31 the Imports totalled £112,295,342, against £100,837,760 for the corresponding period of 1895, an *increase* of £11,457,582. The exports for last month amounted to £20,422,419, against £18,523,030 for March, 1895, an *increase* of £1,899,389; and for the three months ended March 31, £61,232,043, against £52,720,361 for the corresponding period of 1895, an *increase* of £8,512,682. The exports of foreign and colonial merchandise show a *decrease* of £223,273, the totals being March, 1896, £4,623,326; March, 1895, £4,846,599. While for the three months ended 31st ult. the exports amounted to £15,087,265, against £13,141,681 for the corresponding period last year, showing an *increase* of £1,945,584.

EXPORTS:—SUMMARY OF INCREASES AND DECREASES.

Principal and Other Articles	Quantities. Increase.	Quantities. Decrease.	Value. Increase	Value. Decrease
Raw Materials:				
Coal and Patent Fuel ... Tons	7,794	—	—	73,727
Coal, &c., shipped for steamers' use ... ... Tons	56,987	—	—	—
Metals:				
Brass, and manufactures of Cwts.	1,545	—	6,718	—
Copper, unwrought and wrought ... ... Cwts.	1,418	—	26,961	—
Hardware and cutlery £	—	—	30,543	—
Implements and tools, and parts thereof ... £	—	—	17,624	—
Iron, unwrought and wrought Tons	57,634	—	340,745	—
Lead, pig, rolled, &c. ,,	—	1,025	—	6,924
Plate, and plated gilt wares £	—	—	5,950	—
Telegraph Wires, &c. £	—	—	1,640	—
Tin, unwrought ... Cwts.	1,079	—	3,826	—
Zinc or Spelter ... ,,	6,522	—	5,143	—
Other Articles ... £	—	—	22,084	—
			462,244	6,924
			6,924	—
Total ...	—	—	455,320	—
Machinery:				
Steam engines	—	—	49,537	—
Other descriptions	—	—	169,803	—
			219,340	—
			—	—
Total	—	—	219,340	—
Alkali ... ... Cwts.	—	114,918	—	26,340
Cement ... ... Tons	1,936	—	4,389	—
Products of Coal ... £	—	—	59,431	—

EXPORTS:—BRITISH AND IRISH PRODUCE.

Principal and Other Articles.	Quantities. Month ended Mar. 31. 1895.	Quantities. Month ended Mar. 31. 1896.	Values. Month ended Mar. 31. 1895.	Values. Month ended Mar. 31. 1896.
	Cwts.	Cwts.	£	£
Metals and Articles Manufactured therefrom (except Machinery):—				
Brass, and Manufactures of, not being Ordnance	9,349	10,894	35,619	42,337
Copper: Unwrought, in Ingots, Cakes, or Slabs, and Precipitate:				
To Germany	11,348	15,120	24,650	37,266
,, Holland	11,523	14,464	25,154	35,354
,, Belgium	1,066	4,849	2,222	11,697
,, France	20,515	12,471	44,402	30,692
,, Italy	1,483	1,100	3,134	2,826
,, British East Indies ...	1	31	3	76
,, Other countries ...	4,770	4,434	10,328	11,035
Total	50,806	52,652	109,893	129,296
Wrought, or Manufactures, unenumerated:				
To Sweden and Norway ...	487	1,471	1,451	4,270
,, Germany	149	243	576	895
,, Turkey	4,465	3,571	11,683	8,802
,, Egypt	1,970	2,341	4,941	3,793
,, Brazil	1,887	1,483	3,544	4,241
,, British East Indies ...	15,598	9,953	36,916	25,267
,, Australasia	970	609	1,740	1,910
,, Other countries	6,491	13,403	17,553	37,017
Total	30,977	32,562	78,404	88,145
Mixed or Yellow Metal:				
To China and Hong Kong ...	3,491	1,860	7,152	4,234
,, British East Indies ...	13,625	17,941	30,814	37,099
,, Other countries	7,111	4,396	16,135	10,585
Total	26,227	24,197	54,101	51,918
Total of Copper	108,010	109,428	242,398	269,359
Hardware and Cutlery ...	—	—	149,713	180,256
Implements and Tools, and parts thereof	—	—	99,981	117,615
Iron and Steel: Pig-iron:	Tons.	Tons.	£	£
To Russia	170	395	430	1,451
,, Sweden and Norway ...	1,715	1,699	3,550	3,769
,, Denmark	970	2,616	1,982	5,285
,, Germany	10,432	21,305	20,629	45,979
,, Holland	7,079	14,678	14,231	31,172
,, Belgium	4,037	7,018	9,678	21,450
,, France	1,749	3,377	4,764	8,731
,, Portugal, Azores, & Madeira	349	70	776	186
,, Spain and Canaries ...	1,323	1,422	2,652	3,988
,, Italy	7,946	5,074	17,377	13,470
,, United States	665	3,676	3,691	21,584
,, Australasia	2,487	1,379	7,896	3,478
,, British North America ...	370	223	1,034	748
,, Other countries	11,887	7,860	24,388	19,595
Total	52,178	70,792	113,080	180,726
Bar, angle, bolt, and rod ...	11,282	13,176	68,057	78,893
Railroad of all sorts	33,067	54,430	148,787	252,610
Wire, iron and steel &c. ...	3,197	3,849	59,562	73,080
Hoops, plates, boiler plates, &c.	6,869	7,506	48,570	52,493
Galvanised sheets	15,728	21,835	170,750	269,160
Cast and wrought iron, &c. ...	25,775	27,439	320,940	379,152
Old, for re-manufacture ...	7,350	12,794	18,439	35,265
Steel, unwrought	15,497	24,033	152,608	212,770
Black plates for tinning ...	2,064	3,809	22,012	38,513
Manufactures of steel, or of iron and steel combined ...	1,899	2,420	42,362	61,882
Total of iron and steel (including tin plates and sheets)... ...	235,707	263,241	1,521,315	1,862,060
Tin Plates and Sheets:				
To Russia	2,813	1,150	30,744	14,110
,, Germany	617	1,115	7,908	14,199
,, Holland	292	500	2,677	6,338
,, France	2,073	1,161	25,596	13,740
,, Portugal, Azores, and Madeira	357	774	4,344	9,303
,, Italy	146	101	1,757	1,288
,, Roumania	268	612	3,257	6,800
,, United States	16,743	8,903	219,174	101,921
,, Brazil	401	514	4,508	5,584
,, Argentine Republic ...	61	434	653	3,817
,, British East Indies ...	919	869	10,850	9,864
,, Australasia	1,020	1,511	11,927	16,940
,, British North America ...	639	789	7,245	8,165
,, Other Countries	2,452	2,914	29,399	32,549
Total	30,801	21,358	360,128	244,611
Lead: Pig Sheet, Piping, and Manufactures:	Tons.	Tons.	£	£
To Russia	84	91	849	1,113
,, Germany	148	154	1,461	1,785
,, China and Hong Kong ...	287	479	2,573	5,529
,, Japan	350	283	4,252	3,650
,, United States	556	10	5,364	179
,, British East Indies ...	794	884	11,749	12,931
,, Australasia	25	192	312	2,379
,, British North America ...	177	51	1,738	702
,, Other countries	1,256	528	12,971	7,016
Total	3,657	2,632	41,985	35,081

BRITISH AND IRISH PRODUCE—*Continued.*

Principal and Other Articles	Quantities. Month ended Mar. 31.		Values. Month ended Mar. 31	
Plate & Plated & Gilt Wares	—	—	24,951	30,801
Telegraphic Wires, & apparatus connected therewith ...	—	—	19,598	21,238
Tin, Unwrought:	Cwts.	Cwts.	£	£
To Russia	1,870	1,251	6,095	4,045
,, Sweden and Norway ...	543	631	1,737	2,057
,, Germany	710	964	2,183	3,015
,, France	860	1,200	2,900	3,872
,, Turkey	774	870	2,547	2,781
,, United States	358	302	1,110	973
,, British North America ...	533	432	1,708	1,534
,, Other countries	3,245	4,292	10,251	14,030
Total	8,913	9,992	28,53.	32,357
Zinc or Spelter: Unwrought and Wrought	12,748	19,268	8,115	13,258
Total of Principal Articles ...	—	—	2,172,208	2,604,442
,, other Articles	—	—	56,930	80,614
Total of Metals and Articles Manufactured therefrom (except Machinery)	—	—	2,229,136	2,648,456
Alkali	582,948	449,030	136,112	109,772
	Tons.	Tons.		
Cement	23,816	30,552	46,184	60,553
Products of coal (including paraffin, petroleum, &c.) ...	—	—	134,704	194,135

MACHINERY.

	Mar. 1895	Mar. 1896	3 months '95	3 months '96
Mining: (Not Steam Engines). To Countries in Europe ...	£ 1,010	£ 649	£ 3,582	£ 3,824
,, United States	—	35	581	97
,, Countries in South America	2,512	1,564	7,893	13,439
,, British Possessions in S. Africa	17,905	61,107	84,947	182,641
,, ,, East Indies	3,100	5,570	8,563	13,683
,, Australasia	3,380	31,735	9,946	72,994
,, Other Countries	5,178	8,679	10,643	11,331
Total	43,085	107,339	124,093	278,001
Total of Machinery other than Steam Engines	921,979	1,091,782	2,673,282	3,210,003
Total of Steam Engines ...	199,701	249,258	533,780	679,456
Total of Machinery and Mill Work	£1,121,680	£1,341,040	£3,204,062	£3,889,459

EXPORTS OF FOREIGN AND COLONIAL MERCHANDISE.

Principal Articles.	Quantities. Month ended Mar. 31. 1895	Quantities. Month ended Mar. 31. 1896	Values. Month ended Mar. 31. 1895	Values. Month ended Mar. 31. 1896
	Tons.	Tons.	£	£
Copper: Unwrought and part wrought	571	942	24,815	43,849
Iron and Steel:				
Bar, angle, bolt, and rod ...	621	765	4,802	6,019
Steel, unwrought	372	237	4,.48	2,506
Manufactures:				
Girders, beams, and pillars ...	114	124	550	716
	Cwts.	Cwts.		
Unenumerated	47,829	56,144	38,948	43,335
	Gals.	Gals.		
Petroleum	144,700	108,300	6,445	4,094
	Lbs.	Lbs.		
Quicksilver	306,789	213,175	25,432	19,638
	Cwts.	Cwts.		
Saltpetre	1,089	7,239	1,017	6,245
Tin, in blocks, ingots, bars, or slabs	34,529	15,655	107,011	48,464

IMPORTS.

SUMMARY OF INCREASES AND DECREASES.

Principal and Other Articles.	Quantities. Increase.	Quantities. Decrease.	Value. Increase.	Value. Decrease.
Metals:			£	£
Copper: Ore ... Tons	—	4,725	—	9,296
Regulus ... ,,	1,615	—	16,315	—
Unwrought and part wrought	1,432	—	79,673	—
Iron: Ore ... ... ,,	116,261	—	130,908	—
Bar ... ... ,,	2,250	—	21,271	—
Steel, unwrought ,,	—	81	—	2,912
Lead: Pig and sheet... ,,	1,481	—	41,558	—
Pyrites of iron or copper ,,	5,035	—	6,340	—
Quicksilver ... Lbs.	—	726,285	—	62,694
Silver Ore	—	—	—	105,341
Tin, in blocks, &c. ... Cwts.	11,524	—	38,553	—
Zinc, crude ... ... Tons	—	3	19,578	—
Other Articles	—	—	29,533	—
			391,729	180,143
			103,143	—
Total	—	—	201,586	—
Chemicals:				
Alkali ... ... Cwts.	9,363	—	2,994	—
Brimstone ... ... ,,	—	31,324	—	4,035
Saltpetre ... ... ,,	16,784	—	13,389	—
Iron Manufactures:				
Beams, girders, &c. ... Tons	1,927	—	12,353	—
Unenumerated ... Cwts.	—	—	—	—
Zinc Manufactures ... ,,	61,161	—	74,154	—

FOREIGN AND COLONIAL PRODUCE.

Principal and Other Articles.	Quantities. Month ended Mar. 31. 1895.	Quantities. Month ended Mar. 31. 1896.	Values. Month ended Mar. 31 1895.	Values. Month ended Mar. 31. 1896.
	Tons.	Tons.	£	£
Copper:				
Ore:—From Spain	5,382	87	18,268	852
,, Italy	430	600	2,150	3,000
,, United States ...	44	123	751	2,030
,, Venezuela	—	—	—	—
,, Chili	1,969	401	16,341	3,460
,, Cape	782	2,933	7,860	19,410
,, British N. America ...	—	—	—	—
,, Other countries ...	435	171	4,184	1,456
Total	9,042	4,317	49,494	40,196
Regulus and Precipitate:				
From Portugal	—	52	—	1,560
,, Spain	2,549	3,594	99,151	87,270
,, United States ...	311	1,659	10,060	42,003
,, Chili	110	15	2,500	625
,, Other countries ...	378	573	9,515	6,083
Total	4,438	6,093	121,226	137,541
Unwrought and part Wrought:				
From United States ...	1,076	2,057	44,516	82,773
,, Chili	568	1,257	23,360	56,724
,, Australasia	697	812	28,661	33,134
,, Other countries ...	745	422	30,037	16,566
Total	3,116	4,548	126,524	206,197
Iron and Steel:				
Iron ore { From Spain ...	309,182	403,070	170,096	261,292
Iron ore { Other countries ...	44,095	66,468	33,418	73,130
Total	353,277	469,538	203,514	334,422
Iron, bar, angle, bolt, & rod ...	1,705	3,955	12,858	34,109
Steel, unwrought	835	754	9,061	6,149
Lead, pig and sheet	15,583	17,044	148,256	190,414
Pyrites of iron or copper or sulphur	51,924	56,956	87,521	94,281
	Lbs.	Lbs.		
Quicksilver	710,865	24,530	65,083	2,389
Silver Ore	—	—	182,223	76,982
Tin, in blocks, ingots, bars, or slabs:	Cwts.	Cwts.		
From Straits Settlements ...	48,820	61,060	147,010	181,478
,, Australasia	9,293	5,580	28,411	16,843
,, Other countries	3,538	6,585	9,698	20,365
Total	61,651	73,175	185,120	221,678
Zinc, crude in cakes ... Tons	4,228	4,225	68,940	78,418
Total of principal articles ...	—	—	1,250,705	1,422,758
,, other articles	—	—	128,665	158,198
Total of metals	—	—	1,379,370	1,580,956

LATEST FROM THE MINES.

CABLEGRAMS AND TELEGRAMS.

ANGLO-CHILIAN NITRATE RAILWAY.—Gross traffic receipts during the month of March, 1896, £11,500; corresponding period in 1895, £11,000.

ARMADALE.—Messrs. Francis and Johnson, solicitors to this company, have received a cable from Coolgardie notifying that the three Armadale leases have been transferred into the names of the trustees of this company.

ARMADALE.—Mr. Frank Nicolas, the consulting engineer, cables as follows:—"Have holed with rise; samples from rise gave 23 dwts per ton."

BALAGHAT MYSORE.—Cablegram from Mr. Richards:—"312 ounces of gold obtained from 2400 tons of tailings."

BARRETT.—The March gold return is 533 ounces, value £1860. The February return was 571 ounces, value £1827.

BRAND-KUMALIE.—The managers in South Africa cable that the reef at a depth of 78 feet in the underlie shaft, which is being sunk towards the eastern section of the Gold Bug property, is 2 feet 6 inches wide, and pans 3 ounces.

BROKEN HILL PROPRIETARY.—Report for the week ending the 2nd inst. 8168 tons of ore treated, yielded 471 tons of lead, containing 145,836 ounces silver. The price of the shares in Melbourne is 42 5s., buyers.

BLAGROVE'S FREEHOLD.—The directors have received the following telegram from the manager, viz.:—"Crosscut has been driven 35 feet for the month; now driven 43 feet."

BLOCK B. LANGLAAGTE ESTATE.—Production for March, by cable:—"Mill. Ore crushed, 8080 tons of 2000 lbs.; gold retorted, 2134 ounces.—Tailings, cyanide process. Tons treated, 5160 tons of 2000 lbs.; gold recovered, 420 ounces.—Concentrates, cyanide process. Tons treated, 200 tons of 2000 lbs.; gold recovered, 316 ounces; total gold recovered, 2870 ounces."

BURMA RUBY.—The result of the mining for the month of March was 21,000 loads washed, producing rubies valued at 26,000 rupees.

CARIBOO GOLD FIELDS (British Columbia).—The following cable has been received from Barkerville:—"Drain tunnel has been driven 110 feet during February and March. Total length driven and timbered 1549 feet. Ground continues to improve. Still in heavy wash gravel. Government Parliamentary Bill consolidating company's claims and water rights for 50 years has passed second reading. Confirmation this week. Everything progresses satisfactorily."

CASSEL COAL.—A cablegram received gives the output for the month of March as 25,017 tons, as against 22,435 tons in February, and 18,100 tons in March of last year, and being the largest output by 877 tons.

CHAMPION REEF.—Telegram dated April 6 from the mine:—"We are now starting new tailings machinery."

CITY AND SUBURBAN.—Last month's crushing yielded 8203 ounces.

CROWN REEF.—Results for March:—Yield in smelted gold from 120 stamp mill, 6706 ounces; yield in smelted gold from 120 stamp cyanide works, 4597 ounces; total, 11,303 ounces.

CROWN UNITED.—The directors have received the following cablegram from Mr. J. J. Cooper, of the firm of Cooper and Woodhouse, Coolgardie, dated April 7:—"Prospects very encouraging. Developments of the mines corroborate statements made. Tunnel is completed. Connections have been made between works and mill. Hauling ore to the mill, including stoping, estimated at 7s per ton. Crushing has been delayed owing to delay in arrival of machinery, due to block at Freemantle. Mining work well executed with economy."

CONGLOMERATES AND DIAMOND FIELDS OF WESTERN AUSTRALIA.—The directors of the above-named company, which, it is understood, will be issued to the public shortly, have just received information that 340 tons of ore have been treated, giving a return of 510 ounces of gold, or an average of 1½ ounces per ton. They are also informed that a number of diamonds have been found on the property, and on April 2 a telegram was received announcing a find of 25 diamonds.

DAY DAWN BLOCK AND WYNDHAM.—Cablegram from the general manager at Charters Towers gives the result of the crushing for the fortnight ending the 4th inst.:—"Tons crushed, 1150; yield of gold, 1154 ounces; approximate value, £3980; fortnight's expenses, £1950."

DE LAMAR.—The following is the cabled return for the month of March:—"Crushed during the month. 4030 tons; bullion produced in the mill, $70,290; estimated value of ore shipped to smelters, $7175; miscellaneous revenue, $890: total produce, $78,355; total expenses, $43,065; profit for the month of March, $35,290; or, at $4·90 to £ sterling, £7202.

DON PEDRO.—Produce for the month of March 276 ounces.

DURBAN-ROODEPOORT.—The following results for March have been received by cable:—"Quartz milled, 8265 tons, 60 stamps, 28 days, 3829 ounces; tailings treated, 6920 tons, 28 days, 1729 ounces; total, 5558 ounces. Advices have also been received from the mine stating that the ore beyond the dyke is now improving in value."

EAGLE'S NEST.—Cablegram received as follows:—"Struck a rich body of ore 12 inches in width, panning 5 ounces to the ton."

EAST WEALTH OF NATIONS.—Cablegram:—"Lease 1041, north shaft. South drive extended 5 feet, making a total length of 44 feet; reef increasing in width.—South shaft. Crosscut has been further extended 10 feet, making a total of 39 feet. Struck formation 15 feet wide; ore shows visible gold.—Lease 1042. Shaft has now reached a depth of 79 feet."

EMERALD REWARD.—The following cablegram received on the 7th inst.—viz.:—"Tons milled 19, producing 19 ounces 10 dwts. per ton; 9 tons milled producing 5 ounces 10 dwts. per ton.

FERREIRA.—Copy of cablegram received from Johannesburg April 8:—"Results for March. Tons crushed, 10,337 tons; bar gold extracted, 8634 ounces; concentrates caught, 220 tons; assay value of concentrates, 8 ounces fine gold per ton, equal to (say) 1760 ounces.—Cyanide works. Bullion produced from tailings, 2376 ounces; total gold from all sources, 12,770 ounces.

FORBES REEF.—A telegram has been received from the mines stating that the result of the crushing for the month of March is 150 ounces of gold.

GELDENHUIS ESTATE.—Results for March: A cablegram has been received from the head office, Johannesburg, stating the following results for last month:—"Crushed 15,134 tons; obtained from mill, 4321 ounces of gold; obtained from concentrates by cyanide, 472 ounces of gold; obtained from tailing by cyanide, 1411 ounces of gold: total, 6204 ounces of gold."

GELDENHUIS MAIN REEF.—Result of March crushing:—3068 tons crushed, yielding 1294 ounces of gold; 2030 tons treated by cyanide, yielding 587 ounces of gold; total, 188 ounces; profit for the month, £2597.

GELDENHUIS DEEP.—Mr. H. C. Perkins, manager of the mine, cables the result of the clean-up for March as follows:—"Mill ran 26 days. Tons crushed—from the mine, 7163 tons; from dump, 3827 tons; total, 11,000 tons, yielding 2486 ounces; cyanide treated, 7290 tons, yielding 1198 ounces; total yield, 3684 ounces."

GEORGE GOCH AMALGAMATED.—The following cable is just to hand:—"8213 tons crushed, yielding 2053 ounces, and from tailings 1330 ounces."

GINSBERG.—The Johannesburg Consolidated Investment Company announce receipt of the following cable from the above company:—"Production for March, 938 ounces; 10 stamps, 29 days."

GLENCAIRN MAIN REEF.—The Johannesburg Consolidated Investment Company announce receipt of the following cable from the above company:—"Production for March, 4246 ounces; 100 stamps, 26 days."

GOLDEN SPUR GOLD MINES.—The manager cables as follows:—"Sinking shaft to a depth of 550 feet, work being done by contract at £3 15s. per foot, contractors finding all material. We are now down 400 feet, the lode is looking promising, have begun driving north, developments upon the Gate lode must make it an absolute success."

GOLDEN LEAF AND SALISBURY-MURCHISON.—We are advised by receipt of a cablegram from their manager at Cue that the assays from the Agamemnon lode average 4 ounces per ton. Satisfactory as this must be to the shareholders of the Salisbury-Murchison Gold Mine (Limited) it is scarcely less welcome news to Golden Leaf (Limited), which holds such a large interest in the undertaking.

GRASKOP.—The following return has been received from the mine for the month of March:—"435 tons, yielding 310 ounces of gold."

GREAT BOULDER MAIN REEF.—Cable received April 8, from the company's agent at Perth:—"Great Boulder Main Reef. Development proceeding vigorously; 700 tons at grass, average 5 ounces. Manager telegraphs future assured.—Macklin."

HANNAN'S NAPIER.—The following telegram has been received from Kalgoorlie, dated April 2:—"Hannan's Napier. North crosscut is in 60 feet; east 40 feet, west 23 feet. We are now in country rock."

HARQUAHALA.—The following cablegram has been received from Mr. Raymond (Kalgoorlie, W.A.):—"Shaft has reached a depth of 215 feet in soft ground. We are at present crosscutting on the 125 feet and 175 feet levels. Pushing the matter forward with all possible speed."

HAURAKI.—The directors have received the following telegram from the manager:—"Total amount crushed, 380 tons; ounces of gold, 2119; approximate cost, £1750, profit, £4750. Shaft is down 233 feet. No change in mine."

HENRY NOURSE.—Crushing, March: 30 days, 8149 tons, produced 4136 ounces; cyanide, 5860 tons, produced 2030 ounces; total 6166 ounces.

HOLCOMB VALLEY.—The directors in London have received the following cablegram, dated the 7th current, from Mr. George Thomson, who is now, at the request of the directors, on a visit to Holcomb Valley as the company's consulting engineer:—"Technical difficulties have been removed. Recommend you to push ahead with drifting. I quite agree with manager as the best method. There is an ample supply of water on the property. Expect to make returns immediately. I fully believe there is a fair future for the property."

IMPERIAL WEST AUSTRALIAN CORPORATION.—Advices from Perth state that this company's property at Western Shaw is being worked in a business-like manner. The machinery has been delayed, owing to the heavy rain, but when it is erected the manager expects to keep the battery crushing full time for eight months on the stone now in sight.

JUBILEE.—Last month's crushing:—Tons crushed 6262, yielding 1796 ounces, tailings 527 ounces.

JUMPERS (THE).—Results for March: A cablegram has been received from the head office, at Johannesburg, stating the following results for last month:—"Crushed, 5546 tons; obtained from mill, 2450 ounces of gold; from concentrates, equal to 461 ounces of gold; from tailings by cyanide, 419 ounces of gold; total, 3300 ounces of gold; profit for month, £2260. The mill ran 17 days."

KAPANGA.—The directors have received the following telegram from the manager, viz.:—"Shaft has been sunk 9 feet for the month; total depth, 915 feet. Good progress is being made in cutting chamber. There are indications of improvement in the reefs throughout the mine."

KOFFYFONTEIN.—The returns for the month of March are reported to be 4500 carats.

LADY LOCH.—Cablegram from the local secretary, Perth, W.A., April 2:—"We have cleared up after a run of 72 hours, 26 tons of ore; realised 444 ounces of amalgam yielding over 7 ounces of gold per ton of 2000 lbs. Recommenced crushing. We have 5 stamps running."

LANGLAAGTE ESTATE.—Production for March: By cable: "Mill. Ore crushed, 20,714 tons of 2000 lbs.; gold retorted, 6160 ounces.—Tailings. Cyanide process. Tons treated, 12,760 tons of 2000 lbs.; gold recovered, 1830 ounces.—Concentrates. Cyanide process. Tons treated, 440 tons of 2000 lbs.; gold recovered, 1578 ounces; total gold recovered 9568 ounces.

LISBON-BERLYN.—A cable has been received from the manager, giving the following results for the month of March:—"Ore treated direct by cyanide, 1200 tons (of 2000 lbs.); tailings treated by cyanide, 180 tons (of 2000 lbs.) Total recovered, 842 ounces bullion."

LOCHINVAR.—The following is the translation of a cable received from the company's general manager at the mines at Bardoc, Western Australia:—"No. 2 shaft (have) crosscut to the east; the reef is now wider than the drive, 5 feet. Have resumed sinking; depth attained 71 feet, in softer ground."

LYDENBURG MINING ESTATES.—Results for March:—From mill. Crushed 4851 tons, yielding 3502 ounces of gold.—From cyanide works. Treated 2387 tons, yielding 1443 ounces of gold. Total yield, 4945 ounces of gold. Total value of months' output, £14,213.

MASHONALAND AGENCY.—The following telegram has been received from Buluwayo, dated 6th inst.:—"D. Tyrie Laing and 42 men quite safe. Laager Bellingwe district. Gwanda district relieved. Maurice Gifford patrolling for the purpose of attacking."

McKENZIE GLENLOTH.—Mr Frank Nicolas, the company's consulting engineer, cables that "the mine looks splendid, and adds that crushing will commence at the beginning of next month."

MENZIES "CRUSOE" GOLD CLAIMS.—The following information has been received by cable from this company's manager at the mines:—"Started crushing April 2, 10 stamps.—Robinson Crusoe claim underlay shaft. Stone battery working full time."

MENZIES GOLD ESTATES.—A cablegram states that a new quartz vein containing gold has been discovered on the Aurelia block.

MOUNT MORGAN (Queensland).—Results for the month of March:—"Tons chlorinated, 7841; gold returned, 12,013 ounces."

MENZIES GOLD ESTATES.—Report states that the vein just discovered on the Aurelia block is fully 1 foot wide, and can be traced for 950 feet; gold has been seen wherever opened.

MEYER AND CHARLTON.—Result of working for March:—Main reef, 1890 tons crushed; south reef, 4594 tons crushed; leader reef, 716 tons crushed; total 7200 tons. Gold won, 2518 ounces; extracted from tailings, 939 ounces; total 3457 ounces. Profit for month, £3660.

MONTANA.—By cablegram from the mine the directors are informed that the total output for March was 6400 tons of ore which contained gold, 2510 ounces; and silver, 15,510 ounces. The estimated realisable value of the same is $59,900.

MOUNT ROWE CONSOLIDATED.—The following telegram has been received with reference to the new discovery at the 160 feet level in the Regina shaft:—"The north drive has been run 28 feet. The south drive 24 feet. The ore as developed improved in grade. The oil engine is working most satisfactorily.'

MURCHISON NEW CHUM.—The following cables have recently passed between the company and its manager:—"To manager, dispatched March 31:—Report fully whether you have made any fresh discoveries at the lowest level." From manager, to hand April 7:—"Have been unable to discover anything up to the present at the lowest level. Level No. 2 prospecting. The rise from bottom level referred to in cable of March 10 is now up — feet, found ore at 48 feet. It may be premature to attach any considerable importance to this discovery. Report mailed."

MYSORE REEFS (Kangundy).—Telegram from the mine, dated April 4, gives last month's return of gold as follows:—"156 tons of ore crushed has yielded 114 ounces of retorted gold; decrease owing to want of water."

MYSORE.—Telegram from the mine gives the return of gold for the month of March as follows:—"5540 tons of quartz produced 8042 ounces of gold; 3200 tons of tailings produced 591 ounces of gold; 1820 tons of tailings (cyanide process) produced 301 ounces of gold; total production for the month, 8934 ounces of gold."

NEW CRŒSUS.—Production for March (60 stamps 28 days), 2724 ounces.

NEW HERIOT.—Last month's crushing yielded 6045 ounces.

NEWHOUSE TUNNEL.—The following cable has been received from Denver, dated April 2:—"We have driven during the past month 180 feet."

NEW QUEEN.—The London board have received the following cablegram, dated Charters Towers, April 9:—"Have shipped, per *Duke of Argyll*, 445 ounces (gold)."

NEW RIETFONTEIN.—Production for March 2349 ounces.

NIGEL.—Last month's crushing yielded:—Battery, 904 ounces; cyanide, 894 ounces; total 1798 ounces.

90-MILE PROPRIETARY.—The following cable has been received from the company's agent in Perth:—"A trial crushing of 50 tons has yielded 329 ounces of gold amalgam. Crushing proceeding."

NORSEMAN.—The West Australian and General Association (Limited) have just received from their mining expert, Mr. L. M. Davis, in Australia, a report in which he expresses his satisfaction at the acquisition of this property. He considers the mine one of the best in West Australia, and can see no reason why it should not in a short time rank as a dividend payer.

NORTHERN WEALTH OF NATIONS.—The following cablegram has been received from W. Lonsdale, Esq., the Chairman of the company, who is making a thorough examination of the property in conjunction with Captain Rowe, the company's resident mine manager: "New find, at a depth of 60 feet, the assays from the lode average nearly 2 ounces; manager quite satisfied.—Lonsdale."

NUNDYDROOG.—Telegram from the mines gives the return of gold for the month of March as follows:—"2800 tons of quartz produced 3351 ounces of gold. 700 tons of tailings produced 199 ounces of gold. Total production for the month, 3550 ounces of gold."

OOREGUM.—Telegram from the mine, dated April 3, gives last month's return of gold as follows:—"5338 tons of quartz produced 5118 ounces of gold; 5175 tons of tailings produced 939 ounces of gold; total production for the month, 6057 ounces of gold."

PAHANG CORPORATION.—Returns for March:—Jeram Lumpong mill: In 26 days of 24 hours each 955 tons of stone were crushed, producing 40 tons 10 cwts. of black tin; 20 stamps running; working costs, $11,000.—Jeram Batang mill: In 25 days of 24 hours each 820 tons of stone were crushed, producing 40 tons of black tin; 20 stamps running; working costs, $7000.

ROODEPOORT UNITED MAIN REEF.—Crushing for March:—6950 tons produced 3026 ounces; cyanide works, 975 ounces; total, 4001 ounces; profit, £6457.

SACKE ESTATES AND MINING.—According to cable advices received, this company has just floated off on most favourable terms its property on Luipaards Vlei South, formerly known as the Sacke and Saenger portion of Luipaards Vlei. The new company will be styled the Midas East Estate (capital £200,000), and start on its career under the directorate of Messrs. Brochon, Hatch, Mosenthal, Albu, Sacke, and Lubeck. The Sacke Company realises by this first transaction an amount in cash and shares, reckoned at par, equal to 30 per cent. on its total capital of £250,000. The property just disposed of is one out of the very large number of properties owned by the parent company in the Transvaal.

SALISBURY.—Last month's crushing yielded 2450 ounces.

SALISBURY-MURCHISON.—The company have received a cablegram from their manager, Mr. E. Wattis, as follows:—"Agamemnon. The assays from the lode average 4 ounces."

SAN SALVADOR SPANISH IRON ORE. — The s.s. *Emerald* sailed from Santander on the 8th instant, with a cargo of this company's ore for Glasgow.

SHEBA.—The following cablegram has been received from the general manager for the month of March:—"3035 tons (2000 lbs.), 9625 ounces. 3200 tons (2000 lbs.) tailings, 2110 ounces. 75 tons (2000 lbs.) concentrates, 765 ounces. Total, 12,500 ounces. The general manager adds that rich quartz has been struck on level No. 12."

SILVER KING.—Cable from mines:—"During March mill ran 29 days, principally on tailings; treated, 2100 tons; produced, 10,500 ounces silver; shipped, 10,500 ounces; expenses, $10,500; bullion on hand, 1850 ounces."

SPITZKOP FARM.—The following cable, dated April 9, has been received from the mine:—"Hydraulic clean up 286 ounces."

STANHOPE.—Last month's crushing yielded 870 ounces. 15 hours. Crushed 991 tons for 378 ounces. Mill working again. The mill only ran during part of March owing to want of water through breakdown of the pump.

SUGARLOAF 25-MILE CEMENT.—Arrangements have been concluded with Mr. Alexander Brand, cousin of Dr. Albano Brand, for his appointment as engineer and manager of this company's property. Mr. Brand has had a very large experience of gold mining.

WOLHUTER.—Crushing for March:—11,614 tons produced 3691 ounces; cyanide works, 1833 ounces; total, 5524 ounces.

WORCESTER.—Result of last month's crushings yielded 2453 ounces of gold.

TASMANIA EXPLORATION.—The following cable has been received from the secretary of the company at Hobart, dated April 1:—"Have returned from Golden Gate Extended. Shaft has reached a depth of 233 feet. The country rock is slate, intermixed with veins of gold-bearing quartz. Very good indications for gold-bearing reefs. Explorations in lower levels estimated have exposed six parallel reefs.—Jubilee. The mine has been favourably reported upon. There is a large quantity of ore in sight, 17 dwts. to the ton. Will send full particulars by next mail, also letter of instructions to deal with." N.B.—The last paragraph refers to the formation of a subsidiary company for the purchase of the Jubilee property.

TAITAPU GOLD ESTATES.—On the 9th inst., the following was received by cable from Mr. W. A. Low, the manager in New Zealand:—"Since last report developments open up splendidly. Tunnel has been driven 120 feet south; have crosscut to the reef. We have struck solid reef of extraordinary richness, with plainly-defined hanging and foot walls; the hanging wall is quartzite, the footwall is Silurian slate, crosscut driven to intercept lode 70 feet to the north, obtained from one blast 30 bags of stone exceedingly rich. The mine superintendent cut trench 150 feet to the west down gully, 60 feet vertical below outcrop level, found reef same walls, gold is visible throughout. Am convinced there is a brilliant future before the company."

THAMES HAURAKI.—Cable from the representative sent out to New Zealand to report on the property:—"Thames Hauraki Gold Fields (Limited) I consider a most valuable property. It is generally believed here that prospects are grand."

TOLIMA.—The following cablegram has been received from the acting superintendent:—"Estimated returns for March, £3500; estimated profit for March, £300. Will improve."—P.S. In this return fine silver is valued at 33d. per ounce.

TRIUMPH (Hauraki).—The following cablegram from the mine manager:—"The crosscut from level No. 7 is driven 177 feet; cost per foot run, £1 10s. 9d. Good progress is being made developments in the higher levels. On the old hut level a quartz vein has been struck full of visible free gold."

WELD-HERCULES.—In reply to the request of the directors for further particulars of the new discovery recently reported, Mr. William Palmer, the mine's manager, cables as follows, under date 9th inst.:—"New discovery prospects excellent, only worked at the surface. Have struck an important body of ore in lease 661; prospects are grand."

WEMMER.—The London agents are advised by cable that at the general meeting, held in Johannesburg on April 9, the question of the election of directors was left to be decided by ballots to be taken on April 15 and 22. Any shareholders who have inadvertently given proxies other than through the London agency, which may be used to displace any of the present board, and may now wish to cancel such proxies, are requested to furnish a written authority to this effect to Messrs. Robert Whyte and Co., London agents, 19, Bury-street, St. Mary Axe, E.C., not later than Tuesday mornings April 14 and 21.

WEST KALGURLI.—The following is from the last report of the manager of the mines: The main shaft is now down 120 feet, and the reef 3 feet 6 inches wide. The reef is highly mineralised and we are just on the water. I expect in another 20 feet we shall have a very big supply.

WEMMER.—The result of work done during March is as follows:—"6770 tons crushed, yielding 3499 ounces of gold, 29 days. Cyanide plant, 4875 tons treated, yielding 1041 ounces. Concentrates caught 135 tons, assaying 98 dwts. (4 ounces 18 dwts.)."

TENDER.

NORTH LONDON RAILWAY.

THE DIRECTORS of this Company are PREPARED to RECEIVE TENDERS for the supply of 1500 TONS of HOUSE COAL, the deliveries to extend over a period of Twelve Months, or thereabouts, commencing in May next.

Particulars of terms and conditions of Tender can be obtained on application to the Locomotive Superintendent at the Company's Works, Bow Road, London, E.

Tenders, addressed to the undersigned, to be sent in before 9 a.m. on Wednesday, 29th April, 1896, marked outside "Tender for House Coal."

The Directors do not bind themselves to accept the lowest or any Tender.

G. BOLLAND NEWTON,
Secretary.

Euston Station, London, N.W.,
9th April, 1896.

DIARY.

Monday, April 13.
Society of Arts, "Precious Stones," Mr. H. A. Miers, 8.

Tuesday, April 14.
Julia Taltal Nitrate, Cannon Street Hotel, 11.30.
Loma Gold Mines (Limited), Winchester House, 12.30.
"The Jumpers" Gold Mining Company, Johannesburg.
Robinson Gold Mining Company, Johannesburg.

Wednesday, April 15.
Hannan's King Brownhill Gold Mining Co., Win. Ho., 2.30.
Mashonaland Agency, Cannon Street Hotel, 2.30.
Institute Mining and Metallurgy "Transmission of Power, &c.," Mr. P. R. Robert, Geological Museum, Jermyn Street, S.W., 8.

Thursday, April 16.
Australian Broken Hill Consols, Winchester House, 12.
Sierra Buttes Gold Mining Company, Cannon St. Ho., 12.
Lake View South Gold Mine (W.A.), Winchester Ho., 2.

The Mining Journal,
RAILWAY AND COMMERCIAL GAZETTE:
An Illustrated Record of Mining, Metallurgical, Railway, Financial, Industrial, and Engineering Progress.

ESTABLISHED IN 1835.

THE MINING JOURNAL, RAILWAY AND COMMERCIAL GAZETTE, published every SATURDAY MORNING, price SIXPENCE, is recognised throughout the World as being the oldest, most influential, and most widely circulated Journal devoted to the interests which it represents. It circulates

ALL OVER THE WORLD,

Amongst Mine Owners, Capitalists, Investors, Mining, Metallurgical Engineers, Manufacturers, &c., &c.

THE MINING JOURNAL, RAILWAY AND COMMERCIAL GAZETTE has correspondents and sources of information in almost every quarter of the globe. Its policy is absolutely independent; its circulation is cosmopolitan.

THE MINING JOURNAL is neither controlled, nor is any interest in it held or exercised, by any mine owner, speculator, or syndicate; and it is in no way connected with any share-dealing agency.

TO CORRESPONDENTS.—Letters on Editorial Matters, or containing literary contributions should be addressed to "The Editor." All matter intended for insertion must be written on *one side of the paper only*. The return of rejected manuscripts cannot be guaranteed. The Editor invites correspondence and items of news or information from readers in all parts of the World.

TO SUBSCRIBERS.—The Annual Subscription to THE MINING JOURNAL, including postage, is for:—
The United Kingdom, £1 4s.;
Abroad, £1 8s.;
payable half-yearly in advance. It can be purchased at all Railway Bookstalls and Newsagents throughout the United Kingdom for 6d.

TO ADVERTISERS.—The following is an abbreviated Scale of Charges for Advertising:—Companies' Prospectuses, £12 12s. per column, or £20 per page; Companies' or Legal Announcements, 9d. per line, with a Minimum charge of 7s. 6d; Sales by Auction, Publications, For Sale, Wanted, &c., &c., 3d. per line with a Minimum charge of 4s.
Displayed (Trade) Advertisements of 2 inches in depth (or more), Single Column measure, will be inserted at the following rates:—For 52 insertions 2s. 6d. per insertion for each inch in depth; for 26 insertions 3s per insertion for each inch in depth; for 13 insertions 3s. 6d. per insertion for each inch in depth. Terms for special positions and contracts may be had on application.

*** ADVERTISEMENTS (which should in all cases be sent direct to The Business Manager) can now be received for the forthcoming issue of THE MINING JOURNAL, RAILWAY AND COMMERCIAL GAZETTE, on Friday, at 18, Finch Lane, E.C., up till 6 p.m., and at 3, Dorset Buildings, Salisbury Square, E.C until 9 p.m.

Editorial and Advertisement Offices:
18, FINCH LANE, LONDON, E.C.

Telegraphic and Cablegraphic Address: "TUTWORK, LONDON."
Codes used: "A.B.C.," Moreing's, and "Universal."

CONTENTS

Of this Number of "The Mining Journal, Railway and Commercial Gazette," April 11, 1896.

LONDON: APRIL 11, 1896.

A YEAR'S MINING IN NOVA SCOTIA.

WE have just received the report of the Nova Scotian Department of Mines for the year ending September 30, 1895, and, as usual, we find much information of a highly interesting nature embodied in the modest-looking pamphlet. The chief sources of mineral wealth in Nova Scotia are, as is well known, coal and gold—the former coming first in point of total value. We have recently been insisting on the importance of her coal output to Great Britain from a national point of view. It is certain that this same mineral plays an equally leading part in "Greater Britain" from an international point of view. Recent events in the political world have, at any rate, had this beneficial effect, that they have forced even the most insular-minded of Little Englanders to look abroad to his Colonial brethren and to realise the true meaning of British unity. At a moment when every one is feeling the advantages of a closer union between the Colonies and the Mother Country, the importance of the mineral that really forms the connecting link between them, and which provides the means of communication that has in actual fact drawn them nearer together, must certainly not be overlooked. Nova Scotia possesses the only coal field actually on the western shores of the Atlantic seaboard, and this one circumstance alone should be sufficient to cause us to study carefully all the conditions of coal mining in that province. It is to be regretted that the report before us never deals in values, but only in quantities; we see from it, however, that in the fiscal year of 1895, the output of coal was 2,089,245 tons, as against 2,200,235 tons in the previous 12 months. There is, therefore, a small falling off; no doubt this was largely due to an accidental but disastrous coincidence of pithead fires in two important collieries, if not indeed the most important in their respective counties. These fires occurred at the Acadia Mines in Pictou, and the Springhill Mines in Cumberland County, in each case early in the year, and in each case the engine house and boiler house were seriously damaged; in the first-named the mine was compelled to lie idle for several months, and in the second great delays and difficulties were caused, so that it is no wonder if the total production fell off considerably. Under the circumstance, however, this diminution is no indication of an unsatisfactory state of affairs in the coal trade. Indeed, as far as can be learned from a report that carefully, one might almost say ostentatiously, excludes all financial considerations, coal mining generally is in a flourishing condition. Out of the 2,089,245 tons of coal raised 1,831,357 tons were sold, and 203,414 tons were consumed by the collieries, out of which amount the engines took 148,811 tons, and the balance, or 54,603 tons, was consumed by the workmen. Nova Scotia is a cold country, and the winter is long and severe; nevertheless, these figures are by no means excessive. They amount, as will be seen, to a little under 10 per cent. on the total production. In the analysis we reproduced a couple of weeks ago of the results of last year's work at the Marquis of Londonderry's Rainton Pits this item was over 19 per cent., or nearly double that of the Nova Scotian collieries. The total number of men of all classes employed at the Nova Scotian collieries is 5793, so that the above figure works out at some 9 tons per annum for each workman employed—a very fair allowance. It seems that the above 5793 men worked for 1,408,568 days in the year, or 243 days per year per man. This gives an average of 4·7 days worked per week, a figure somewhat above the average of those we published last week as being the result of the best three months in the English coal trade. But of the total number of men, we find that there were 4112 employed underground and 1681 above ground. The gross output of coal per man underground is, therefore, 508 tons, and the gross output per man above and below ground is 361 tons. We may note, in passing, that at Springhill, where the chief seam is 11 feet in thickness, the very high proportion of 1232 tons was raised last year for each man engaged underground. Reverting, however, to the averages and comparing them with those obtained in Great Britain in 1894, we find that here the proportion of men employed above ground to those underground is rather over 4 to 1 whilst, as we have seen in Nova Scotia, it is only 2·5 to 1, so that the latter province would seem to employ an undue proportion of surface labour. Nevertheless, the weights raised in Great Britain per man employed below ground and per man employed above and below ground are returned respectively at 342 and 277 tons; so that, even on the latter figure, Nova Scotia shows a result 25 per cent. higher than we can do on this side. This fact shows, in the first place, that the work of coal mining must be conducted scientifically and economically by the "Blue-noses," but it, no doubt, also shows the advantage presented by thick seams and young coal fields over a country like ours, where most of the best seams have been largely worked out, and where many of the coal fields are within measurable distance of exhaustion. There is no reason, unfortunately, to doubt that the latter is really our case in this country, and the sooner all engaged in the coal trade, owners, masters, and men alike, realise the unpleasant truth and set themselves resolutely to face the rapidly-altering conditions of British coal mining, the better for all concerned.

Turning to another element of comparison—namely, that of the immunity of the workers from accident, we find that this subject receives but scant attention in the Nova Scotian report, no summaries or totals being given, and the subject treated altogether in a most perfunctory manner. As far as we can gather, the accidents in the past year appear to have numbered 46, out of which 11 were fatal. Assuming that these figures correctly represent the actual casualities, we may disregard the non fatal accidents as being useless for the purposes of comparison. Unfortunately, no two countries have yet formulated the same definition of what constitutes an accident that ought to be reported, so that comparisons, on bases often widely divergent, are obviously impossible. Looking, therefore, at the fatal accidents alone, we note that these amount to 1·898 for every thousand people employed above and below ground, and to 5·25 for every million tons of coal raised. These numbers are fairly comparable with those of this country, which were respectively 1·597 and 5·776 in 1894. It is thus seen that the death rate is slightly higher in proportion to each worker, but, owing to the greater producing capacity of the latter in Nova Scotia, is slightly lower when calculated on a tonnage basis. This may, therefore, be looked upon as showing a state of affairs about on a par with matters here, and speaks well again for the way in which coal mining is conducted in Nova Scotia; especially having regard to the additional danger incurred in working thick seams, and to the apparent laxity of the coal mining regulations as compared with this country.

The second important item on the list of Nova Scotian mineral products is gold. We may estimate the value of the coal raised at about £90,000, whilst we see from our report that the gold output was 22,113 ounces, or (say) rather under £80,000 in value. This shows a marked improvement on the previous year, when the output was 19,930 ounces. It seems that the total number of gold mines making returns is 37, and that there are 27 mills reported in the provinces, although there is no statement as to the number of heads of stamps in operation, a useful figure which we should like to see included in future reports. The total number of tons crushed is set down at 58,082 for the year, so that each mill would only have averaged 2150 tons per annum. Now, each stamp head in a well run mill will crush considerably over 1000 tons of quartz in the year, so that however small the mills in Nova Scotia may be—and there are no large ones—the result is still a very

had one, and shows that they cannot have been working anything like full time. On the other hand, the yield of the quartz comes out at 7 dwts. 15 grains of gold to the ton, a very fair return indeed, when it is remembered that gold milling in this province is still conducted on somewhat primitive lines, and that modern plant for the treatment of tailings and concentrates is conspicuously wanting. At the same time, most of the Nova Scotian quartz carries a high percentage of mixed sulphurets that are often very rich in gold, although the gold itself is at the same time coarse and free. The employment of concentrators is therefore indicated, but as a rule the individual mines work on so small a scale that they cannot very well afford an expensive mill equipment. Nova Scotia should therefore present some excellent opportunities for capitalists desirous of engaging in gold mining.

Of other mineral products there is not much to say, the following being the most important:—

Iron ore	.. .. ..	79,636 tons.
Gypsum	.. .. ..	133,300 „
Limestone	.. .. ..	30,176 „
Manganese	.. .. ..	110 „

The whole of the iron ore raised seems to have been smelted at the three iron works now in existence in Nova Scotia, the production being 29,090 tons of pig iron, making the yield of the iron ore 36 per cent. As most of the ores of Nova Scotia are rich brown and red hematites, averaging quite 45 per cent. of metallic iron, it must be presumed either that all the ore mined was not smelted or else that such low grade ores as ankerite, which are valuable rather for their fluxing properties than for their content of iron, have been included in the iron ore returns.

It seems curious that a country so well endowed by Nature, with a splendid coal supply, rich deposits of iron ores, and a grand seaboard should, not be able to take a more prominent place amongst the world's iron-producers than Nova Scotia has done hitherto, and we cannot but think that its backwardness is due more to the want of apathy and enterprise in its inhabitants than it is to any intrinsic and less easily removable reason.

HERR SCHMEISSER'S REPORT.

At last an anxious and expectant public have been relieved, but the relief, after all, is but a partial and not a complete one. During the Easter holidays the report of Herr SCHMEISSER on the Gold Fields of Western Australia has been published, but, unfortunately, after a perusal of it, we are, as the well-worn phrase has it, "No forrader." When it was known that this eminent expert was employed by the London and Western Australian Investment Company to make an examination of the colony's gold fields, and report upon them, we thought we should know then, once and for all, what to expect; what was the probable future awaiting the gold fields; and what investments we could make without qualms and risks. But we have been disappointed. The report does not pretend to realise all these anticipations, and the future of the colony is as uncertain as it was before even Herr SCHMEISSER started upon his mission. But this gentleman is not in the least to blame. The fact is, it is impossible to form any reliable opinion upon so difficult a subject. No expert in the world could pretend to solve the problem, and only those who have no reputation to lose, and who have certain axes to grind, would attempt it. The gold field is in its infancy. It is but a little child, and what philosopher or student of human nature would dare to predict, from a mere contemplation of an infant's countenance and prattle, his probable destiny; or foresee the circumstances lying in wait to mould its character for good or for bad? No; the child must develop into a youth, when habits have been formed, and its character roughly fashioned, and even then prediction would be bold and hazardous. The analogy holds good with the newly-born mining industry of Western Australia. It is still in its infancy; merely prattling; though now and then it has somewhat astonished us by gleams of remarkable precocity. But these are not to be taken seriously; but merely as abnormal and flashing symptoms of child life. Attention must be bestowed seriously only upon the normal development, and as this is but little advanced, and is only in a rough and shapeless condition, it is not prophetic of its ultimate fashioning and destiny. That is the chief reason why Herr SCHMEISSER will not risk a conclusive answer to the questions which investors are so eagerly asking. The fields are not yet sufficiently developed to allow him or any one else to give a definite pronouncement. He wisely observes:—"In a year or two's time, after more extensive developments have taken place, a far better opportunity will be given for forming an opinion on this all-important question. With regard, however, to some of the quartz reefs, it has already been observed that even at the present shallow depths the pinching of the vein does occur. With respect also to the lenticular veins, it is problematical whether they will reach great depths. On the other hand, observations and mining operations would indicate that where the veins are of considerable extent and thickness, they continue so to a great depth. It may, therefore, be hoped that for such veins, amongst which may be catalogued the composite veins or lode formations, a permanence in depth is possible. Nothing certain, however, can be stated in this respect." This is a careful and guarded utterance, and cannot in the future be brought up against him should the fields turn out ill or bad. He is neither optimistic nor pessimistic. Nevertheless, he does not condemn the colony, as not a few quite anticipated. He tells us there is plenty of gold there, a fact which has long been conclusively established. But if it only exists on the surface, then that would amount almost to a condemnation of the field. The vital and deeply interesting question is: Does it exist at great depth? Herr SCHMEISSER cannot answer us; so we must still develop, and patiently wait until we are in a better condition to judge.

But, in spite of its shortcomings in this respect, the report is a valuable one, if only for its weighty utterances on the value of the mines, and its sound advice to investors. Herr SCHMEISSER solemnly warns the public against the unscrupulous expert and company promoter. To give such advice is always delicate, for the average investor does not like to be preached at, even though it is done with the most friendly intentions, for he flatters himself that he can safely rely upon his own judgment and caution. But coming from so great an expert, the investor ought to be grateful for the warnings given, for he cannot be expected to know the devices resorted to out in a far-off colony to waylay and ruin him. Herr SCHMEISSER has seen all these things, and he hastens to give the public the benefit of his experiences. He says:—"The Australian prospector is well acquainted with the fact that the surprisingly rich pockets frequently found at or near the outcrops of the reefs quickly disappear as depth is attained. He, therefore, tries to sell his find with as little loss of time as possible. The report of the mining expert necessary for this is, of course, a most brilliant one, if the so-called expert does not insist first of all on deeper trial shafts and developments in order to examine the deposits more carefully. Experts of very doubtful capacity and character undoubtedly exist in these gold fields. Members of all trades, formerly sailors, officers, physicians, chemists, merchants, book-keepers, become mining experts with a surprising rapidity, from the moment they breathe the air of the gold fields and get a sight of the shining yellow metal in its natural state. The most extraordinary things take place. Such an expert reported on a deposit solely on the basis of samples found and submitted to him. It will not be difficult to mention similar occurrences as illustrative of the knowledge and conscientiousness of some mining engineers. In consequence of judging the whole deposit to be equal to the rich outcrops, many totally exaggerated opinions about the value of many mines got into existence. The extraordinary demand on the part of European mining companies endeavouring to obtain Australian gold deposits for formation into companies at any price contributed to the extraordinary rise in the price of the properties. The Australian buyers frequently added to the original purchase price a quite unjustifiable premium. The European company promoters thought they could not float rich deposits at prices high enough. In some of the larger mining fields ground was hastily taken up, which had not even been seriously prospected, with a view of forming subsidiary companies with as high a capital as possible. In this way mining properties have been floated with considerable capital, which could only produce dividends by being worked on a small scale, and in the most economical manner. The unheard-of high capitalisation excludes, of course, in most cases, the payment of dividends, and if these dividends, so eagerly expected by the shareholders, are not forthcoming, a breakdown sooner or later of the over-capitalised mine is inevitable." He then goes on to describe the tricks resorted to to rig the shares on the market. "In the interests of Stock Exchange speculation, the ore in certain mines is declared to get poorer at times, strikes break out, water floods the mine, or the reverse happens; false news of the discovery of exceedingly rich ore or veins is spread abroad, or, to maintain high prices in the Exchange, only the richer portions of the deposits are worked. Stock Exchange gambling only too frequently hinders in a most regrettable manner the economic working of the mines." There is no exaggeration here. It is a statement of pure, unvarnished, and most deplorable fact. Even in this Herr SCHMEISSER does not not teach us anything new. Nevertheless, it is well to be reminded of these things, unpleasant though they be, for, if it has no other effect, it may hasten forward the remedy.

THE ROBINSON COMPANY.

BY this week's mail we have received particulars of the annual general meeting of the Robinson Gold Mining Company, which was recently held in Johannesburg. It is a pity that it could not have taken place at a more pacific time, and when the future was not so beclouded as it unfortunately is, for then the brilliant results achieved by the company, and its magnificent prospects, would have excited more attention and created more general enthusiasm. In considering the present position of this company, its past career, and its probable future, one is lost in admiration. One might exhaust all the eulogistic adjectives in the English language, and yet fail to give adequate utterance to one's feelings. One of our South African contemporaries endeavours to rise to this height, in the following eloquent phrase:—"If there is one mine on the Rand with a past, a present, and a future of unimpeachable solidity, if there is an auriferous Atlas on the Rand capable of bearing lightly the whole weight of mining speculation, and of carrying the district through a cycle of seasons of depressions, it is the Robinson Mine." This is exceptional tribute, but it is paid to a wonderful and exceptional mine, and it is not, therefore, undeserved. The meeting in question was attended by a majority of the French shareholders, which is a significant fact, and should not be lightly regarded by English shareholders; whilst a far greater number of the same nationality were represented by proxies. This confirms the now well-known fact that Frenchmen have been purchasing these shares in considerable quantities, thus displaying more foresight and judgment than the average English investor.

Coming to the year's achievements, the profit has again shown an increase over the preceding year. It amounted to close upon £374,745. The balance standing to the credit of profit and loss at the end of 1894 was £331,580 6s. 6d., which, added to the above net profit, makes a total of £706,324 19s. 6d. Out of this sum dividends of 6s. and 8s. (Nos. 10 and 11) have been declared, absorbing respectively £165,000 and £220,000, leaving the balance of £321,324 19s. 6d., to be carried forward. It will thus be seen that the dividends amounted to a little more than the net profit, but the directors considered this was justified in anticipation of a satisfactory year's run with the full 120 stamps, and in expectation of increased returns from the treatment of tailings and concentrates through extra tonnage crushed, as well as an additional source of revenue becoming available from the working of slimes. It is quite possible, however, that the results of the current year will not come up to anticipations, owing to the difficulties and obstacles which most of the Rand mines have been experiencing of late. We mean the labour difficulty. The Robinson Mine has not been exempted from this unfortunate drawback. It has caused, and is still causing, the directors grave anxiety. They have attempted to cope with it by sending emissaries to the distant districts, but these efforts have met with little or no success. The board, however, are in hopes that the new native pass law, which is shortly to be put into execution, will have beneficial results—a hope which will be shared by every one interested in the welfare of the South African mining industry. With respect to the immediate future, Captain Mein is sanguine that the profit will reach £38,000 a month, and when it is remembered that the net profit last year was £31,000, which enabled a dividend of 14 per cent. to be paid, it will readily be calculated what dividends might be expected as a result of the current year's operations. The other figures of the year's work are interesting. During the 12 month 140,655 tons of ore were mined and milled, the proportions of the various reefs taken being 36·92 per cent. of main reef; 30·86 of main reef leader, and 32·22 per cent. of south reef. From this was obtained in the battery 120,113 ounces of bullion, which realised £431,666, and 3695 tons of concentrates were saved, yielding 14,938 ounces of fine gold, worth £61,723. The total mill extraction was thus 135,051 ounces, worth £493,389, an average of 19 dwts. 4 grains, or £3 10s. 2d. per ton. By the cyanide process 75,825 tons of tailings were manipulated, yielding 22,157 ounces of bullion, of a value of £72,553, or an average of 3 dwts. 3 grains bullion, or 10s. 4d. per ton. The value of the total production from mill, cyanide, and concentrates was £565,943, or £4 0s. 5d. per ton, the entire working costs, including mine development and depreciation, were £210,166, or 29s. 10d. per ton, and the net profit derived from working the ore from the Robinson Mine only, amounted to £355,777, or £2 10s. 7d. per ton. Other profits were £13,111 from treatment of purchased concentrates, £3648 from general revenue, and £2209 from interest on deposits.

Speaking of the working costs, the directors have been successful in further reducing them, a significant fact which must be taken into consideration when estimating the prospects of the company. In 1894, the costs of mining and milling were £1 1s. 8d., whilst last year this was brought down to 19s. 1d., showing a reduction of no less than 2s. 7d. Brilliant as the achievements have been, and excellent the yield, still the latter has shown a slight falling off in all departments, but this is only temporary, due to the poorer rock manipulated, in addition to which, owing to the shortness of native labour towards the close of the year, machine drills had to be used in stoping, whereby larger quantities of waste rock were of necessity mixed with the ore sent to the mill. During the year the development of the mine has considerably advanced. From the report of the manager it appears that there are 388,452 tons of reserves in sight, exclusive of the main reef. But, apart from all these results and prospects, what is of greater interest to the shareholders is the probable life of the mine. Of course, it is impossible to estimate this with any certainty. One can only calculate approximately. The general manager computes that there are 112·263 claims on the south reef still unworked, and 122·227 claims on the main reef leader. On the basis of the reef yielded by the claims already worked out, and making a liberal allowance for the reefs flattening, and assuming also that the reefs can be milled in the same proportions as during 1895, there would then be at least 3,700,000 tons to crush, which with 120 stamps would occupy 19 years, and upon the present basis of cost and yield would give an aggregate profit of about £9,000,000. There is every likelihood, however, that this profit will be largely augmented chiefly owing to the decrease in the working costs and the increase and profit through slimes treatment; whilst the life of the mine is likely to be extended by the manipulation of larger quantities of main reef rendered possible by the reductions in the working costs.

NOTES AND COMMENTS.

SOUTH AFRICA may certainly be described at the present moment as the land of misfortunes. It veritably is the dark continent, even where the highest civilisation exists. It is dark inasmuch as we look in vain for gleams of light and hope. Our vision is too feeble to penetrate the gloom which is now overshadowing it, and consequently we cannot foresee whether new misfortunes are being hatched, or whether the darkness will eventually disperse itself and leave all bright with hope and promise. Day after day something happens to cause us grave anxiety, and to fill us with despondency. A gleam of light may now and then reveal itself, but it quickly vanishes, like a terror-stricken interloper, and the darkness seems only the denser by reason of our disappointment. The latest misfortune is the announcement of the illness of Mr. Cecil Rhodes, at the very time when his presence and guidance are so sadly needed. Ready to exaggerate any ill news, the bears have already seized the opportunity to cause a scare by the circulation of all kinds of depressing rumours. They even went so far as to announce the death of Mr. Rhodes. But, naturally, it was not generally believed in, though, at the moment, the rumour caused much alarm. It is to be hoped that no such fatality will occur. At the present moment it would be a great calamity, and bring about the gravest consequences. Very few particulars of his illness have been made public, but what is known goes to show that it is of a serious nature. Though his death would be hailed with satisfaction by Boers and Germans

it would cause universal grief amongst Englishmen, who il have no difficulty in calculating the irreparable loss it would mean.

ONE of the features of the Mining Market during the week has been the continued activity displayed in Indian shares. The public seem fully alive now to the fact that in the Colar gold fields there is a region of great promise, and that the shares of the leading companies operating there are worth purchasing and holding, if only for the dividends which are prospective. In our comments a week or two ago on the Mysore and Nundydroog Mines, we drew attention to the improvements which took place during the past year, and which are prophetic of what may assuredly be anticipated in the future. Now that the returns for the first quarter of the present year are to hand, we are enabled to see whether the improvement is kept up, and to make a comparison with the figures for the corresponding period of last year. As a matter of fact, the outputs of all the mines show most marked improvements, and, of course, still further progress may be expected as soon as the additional stamps, at both the Champion Reef and Nundydroog Mines, get fully to work. Taking the Mysore first; for the first quarter of 1895 the output was 15,579 ounces, whereas for the three months of the current year it has jumped up to 25,428 ounces, an increase of 9849 ounces. But from this increase must be deducted the 7000 ounces which the manager put aside. Therefore, the legitimate increase is only some 2800 ounces. Increases of over 2000 ounces are shown in the outputs from the Champion Reef and Ooregum Mines, whilst the Nundydroog comes a little short of 1000 ounces. Unfortunately the grade of the ore at the Champion Reef and Ooregum still shows a decline, whereas from the Mysore and Nundydroog the improvement is maintained.

IN one of our leading articles we deal with the report, recently published, which the eminent expert, Herr Schmeisser, has written on the gold fields of Western Australia. This report was published at some length in the *Times* of last Saturday, but it has not been generally communicated to the Press, and, therefore, all other papers have to depend upon the extracts given by our contemporary. Many expressions of opinion upon the mining industry of the colony have been given by experts, miners and otherwise, all of which tend in a similar direction—viz., that there is a brilliant future awaiting the colony. But the majority of these experts have not been unprejudiced in their opinions, and they have been formed and published with a view to help forward some scheme of their own. Therefore, the public hailed with pleasure the announcement that Herr Schmeisser would, on behalf of a leading company, make a thorough examination of the fields, and give his opinion on them, without bias and without favour. We thought, then, of course, we should have an opinion upon which we could rely. Not only would it be the judgment of one of great skill, but one in which the utmost confidence could be placed. But we have shown that the report of Herr Schmeisser does not come up to anticipations, and that he leaves unsolved the problem which we are so anxious to have solved. The latest opinion of one who knows what a gold mine is, is that of Mr. Pritchard Morgan, M.P., who has been on a tour of the Coolgardie gold mines, and who has just returned to England. On his arrival at Plymouth he was immediately interviewed by representatives of the Press, and he gave his opinion that the country had a very bright future.

THE chief difficulties in the way of profitable mining were the want of water and the heavy cost, and the highly inconvenient mode of transit. But these difficulties are not insuperable, and will be overcome in time. He believes that the resources of some of the mines will astonish the world, and pointed out that the opening of the railway to Coolgardie would be of immense importance, and would materially assist in the future development of that district, the reefs of which are of a very auriferous character. Naturally Mr. Morgan did not go to Australia for the mere purpose of seeing with his own eyes, and undertaking a little pleasure trip. He went there for the purpose of picking up some good things if they offered themselves. Therefore, he has purchased one mine, and he is negotiating with others for himself and friends. To an interviewer he confided the information that he had made a very satisfactory deal by entering into a contract with the Government of South Australia, whereby he obtained a concession of 5000 square miles for mining purposes. This, by-the-bye, is the greatest concession granted in any colony for such purposes The superintendent engineer of the Great Boulder Mine has also arrived in England for the purpose of attending the annual meeting of the company shortly to be held. He, too, was interviewed, and gave it as his decided conviction that the prospects were very bright, and that everything pointed to a successful future for the colony. Of course, the gold fields have not yet emerged from their infancy, but the country is rapidly developing, and when thoroughly opened up will, in his opinion, be one of the finest gold fields in the world.

THE result of the first year's operations of the Transvaal Gold Fields (Limited) has been very gratifying, and consequently the shareholders, at the meeting on Thursday, were highly pleased with the report placed before them; in fact the only discordant note heard, if indeed it can be described as such, was that, compared with the amount of profit earned, the sum to be distributed amongst the proprietors for the purpose of paying a dividend at the rate of 40 per cent. was a very small one. But as Mr. FitzWygram wisely pointed out, the directors, considering it would be better to err on the side of caution if at all, had decided to recommend not only the carrying forward of one-half of the profit, but also the creation of a reserve fund. This is a very judicious course to pursue, in spite of the bright prospects held out for the success of the undertaking in the future. The unexpected event often takes place, especially in mining matters, and then it is always satisfactory to know that any extra expense, attended most probably with no increase in the profits, will not materially affect the income of one particular year. Virtually, the profit earned by the company under review during the past year was equal to 125 per cent. of the capital. All of the properties in which an interest is held are estimated at a high value, whilst the most promising assets for future profits was considered to be the Transvaal and Delagoa Bay Investment Company. No doubt, in the near future, all the traffic to and from the South African Republic and the adjoining countries, will be *via* Delagoa Bay, which is over 100 miles nearer to Johannesburg than Durban, and nearly 700 miles nearer than Cape Town. The observations of Mr. FitzWygram in regard to the disturbances in the Transvaal, are very consoling. His opinion is that the storm will ultimately lead to the establishment of South African affairs, and especially of the mining industry, on a more sound and equitable basis. We can only earnestly hope his prediction will be fulfilled, notwithstanding the many unpleasant rumours which have been set afloat, from time to time, concerning this harassing question.

IN November last we had occasion to draw the attention of our readers to a circular which the directors of the Waratah Gold Mines (Limited) then issued to their shareholders, and which contained information of a most hopeful character. It went conclusively to show that the mine was a promising one, that it was being vigorously developed, and that the quality of the ore improved as they went down in depth. During the week another circular has been issued, which we produce elsewhere. This circular more than confirms the promises held out in the former one, and should go far to assure the shareholders that they may rest pretty confident that the future of the mine looms brightly. As in the former circular, the present one contains a *résumé* of the operations up to date, in the form of cablegrams and extracts from the managers' reports. In several cases the assays have reached a very high figure, much too high, of course, to be permanently maintained, but sufficient to prove that the quality of the ore is high grade. In this circular the directors reprint an extract from the *Croydon Mining News*, which quotes a statement from the Warden, F. P. Parkinson, Esq., in his annual report for the Minister of Mines for 1895. This gentleman says that "The Waratah Mine has been doing excellent work since the beginning of the year. About 200 tons of excellent looking stone are now at grass. I saw some stone that had been struck a few days ago at a depth of 424 feet on the underlie, and it was the best I have seen from the mine." Such independent testimony as this, coming from so high a quarter, is of great value, and is further confirmatory of the richness of the mine.

SATISFACTORY from many standpoints as are the Board of Trade Returns for March, it is in their hopeful bearing upon the metal trades that they are principally remarkable. The improvement in textiles, which down to the very end of last year was a notable feature in the monthly returns, has now received something like a check, and the palm now lies with the metallurgical products, which are undoubtedly receiving in full force the benefits of keener trade influences. It is certainly a matter of regret that the Midlands are not so largely affected by the current revival as might have been hoped, but the industries in question have been long enough under a cloud to heighten the appreciation aroused by even a trifling improvement, and the ironmasters and steelmasters are likely to be duly thankful for the increase of £340,745, or 22 per cent., in the exports of these two metals. As was shown to be the case in the last returns, the increase for March was largely due to an exceptionally heavy consignment of rails to the East, and to a considerably augmented demand for galvanised sheets in Australia, South Africa, Argentina, and India. Comparing broadly, however, the whole of the exports in the metallurgical branches, the improvement in iron and steel is compensated by an unfortunate shrinkage in the tin plates exported to the United States, which, however, is again neutralised by larger consignments of pig iron to America, Germany, Holland, and Belgium. Hardware, implements and tools, similarly exhibit improvements which can wholly be described as satisfactory. In their general bearing, then, upon the metallurgical trades, the Board of Trade Returns are broadly satisfactory, and if they may be taken as a reliable index of current industrial tendencies, they are of a particularly hopeful character.

SIGNIFICANT information with regard to the prospects during the remainder of the current year of the trade in British coal with France, and also with respect to the effect of strikes upon our coal trade with the Continent, is to be found in two reports which have just been issued—namely, that of Consul-General Bernal, in his report on trade in the Havre district during the past year, and in the report of Her Majesty's Consul at Bordeaux. The first-named official points to the probability of a decrease in the imports of British coal to the western ports of France in consequence of the new tariff of rates of transport of coal over the Northern and Western railroads. It is calculated that the ports of Rouen, Dieppe, Honfleur, Trouville, Caen, and Havre will be affected to the amount of 400,000 tons, but the Consul expresses doubts whether Havre will suffer to any very great extent. He cannot learn that the new tariff has as yet produced any effects in Havre, but he warns all who are interested in the production and export of coal in the United Kingdom to prepare themselves for an increasingly severe competition in the western ports of France. At Caen, the new tariff has caused a decrease of 11,000 tons in the imports of coal from the United Kingdom during the past year, managers working off their old stocks so as to be ready to profit by the new rates which come into operation at the commencement of the year. At Trouville, the import of coal was 9886 tons less than in the preceding year, and at Honfleur 8000 tons less, while, on the other hand, there was an increase of 6000 tons in the coal imported into Fecamp.

WITH respect to the result of strikes the Bordeaux Consul points out that the absence of any very prolonged or serious strikes in the United Kingdom in 1895, and the maintenance of prices consequently at a sufficiently low figure for attracting particularly the smaller consumers, had a favourable effect upon the import trade of that port in British coal. He goes on to remark that so long as strikes in the coal industry at home, and the consequent sudden rise in prices can be avoided, there is, in spite of the increasing demand for French coal in that port, every probability of the trade in British coal with Bordeaux continuing to prosper and increase. But wherever French coal can be used economically (by private consumers), the slightest interruption of the supply, or in the regular prices of British produce, such as is caused by strikes at home, at once brings the French product to the front. It must be remembered that the French mines are now better fitted than formerly for producing larger quantities and for continuing their arrangements for greater output if required, and also that there are several districts in France which now produce really good coal, so that altogether it is becoming more and more difficult to change a purchaser's opinion who may for one reason or another have taken to the use of French coal of good quality. The total importations of British coal to Bordeaux in 1895 amounted to 458,444 tons, as against 417,430 tons in the previous year, an increase of 41,014 tons. Of these importations the French Railway companies of Bordeaux took last year 70,000 tons, whilst in 1894 they had only taken 17,000 tons. The remainder was, as usual, imported for household or industrial use. Only private custom can now be taken into account by those who supply British coal for use in France, as the various Government works are obliged to use French coal, whatever may be the difference in their prices.

THE MINING MARKET.

FRIDAY EVENING.

Holiday Markets.—Kaffirs well maintained.—Indians and Westralians firm, and others neglected.

IT is only in accordance with general anticipation that the business in Mining Shares this week has been characteristic of holiday markets. The cheerful Spring weather which set in with Easter has tempted many members of the Stock Exchange to prolong their vacation, and as the next few days will be occupied with the Settlement of a nominally nineteen days' account, there has been little inducement for the public to make a fresh start in speculation. In spite of an obvious lack of support, however, the markets have emerged satisfactorily from a trying period. The fact that fluctuations have been on so small a scale, and that the preponderance of movements has been in the upward direction, must be taken as an indication of the inherently healthy state of the market. The open account is of such small dimensions as to be practically proof against speculative alarm. Holders have schooled themselves into the belief that they have seen the worst of their troubles, and although their hopefulness has assumed no very practical form, signs are not wanting that advancing prices will before long reward their patience.

The Kaffir Market opened with a rather better tone after the holidays, but as the professionals had no fresh news to go upon, and the public was conspicuous by its absence, business soon came to a standstill, though in the Street there was a slight increase of activity. West Australians were firm, though there was not very much going on. Indians and New Zealand shares displayed strength, but otherwise the Miscellaneous Market was dull. On Wednesday South Africans exhibited a distinctly better tone, buying orders being reported from the Cape. The crushing returns published from hour to hour indicated a return to normal conditions at the mines, and it became more evident that the bears had been doing their best to exaggerate the extent of the labour trouble on the Rand. West Australians were strong, especially those shares connected with the Hannan's district. Indians further advanced and New Zealand shares were again a good market, but there was next to nothing doing anywhere else. On Thursday a crop of alarmist statements had a depressing influence upon South Africans, but the extent of the general decline was not serious. Westralians were less animated, and in several cases reaction was shown. Indians and New Zealand shares were also off, and Broken Hills were flat. To-day things have been very quiet, transactions being almost confined to closing operations in anticipation of the carry-over to-morrow.

South Africans.

During the week there have been plenty of conflicting rumours calculated to affect the Kaffir Market. On Tuesday, for instance, the bears wanted to have it believed that the British Government contemplated conceding complete independence to the Boers. This was not taken sufficiently seriously to affect prices. On Wednesday came the news of Matabele defeats, accompanied by an improvement in Chartered. On Thursday the report of Mr. Rhodes' illness was amplified into his sudden death, which sufficed for the time to put Chartered down ¼. To-day there is the confession of the De Beers' manager implicating the Chartered Company in the smuggling of ammunition into the Transvaal, together with the formal committal of the Reform Committee to take their trial for high treason. With such divergent influences to contend with, the market can hardly be regarded as tempting for the uninstructed speculator, and its inherent strength under the circumstances is accordingly the more remarkable. The extreme fluctuations in Chartered have been within 4 1/16 and 4¼, the closing at 4 3/16, showing no alteration from the date of our last comparison, the Wednesday before Easter. Goldfields have rallied ¼ to 12 5/16, in anticipation of the dividend declaration promised at the recent meeting. Goldfields Deep have been bought, and show a gain of ⅝ at 9⅜, whilst Gold Trusts are ¼ better at 8¼. The Rhodesian Land group are higher where changes are shown at all. Mashonaland Agency have improved 1/16 to 2⅛, Willoughby Consols ¼ to 2, and Mozambiques are the turn better at 1 1/16. Oceana and Bechuanalands both at 1⅛, Rhodesia Exploring at 6⅛, and Pardy's at 1⅛, are all on last week's marks. Paris buying has put African Estates up 1/16 to 2⅛, whilst New Africans are unchanged at ⅛, and Austral Africans at 1 1/16. Barnato shares are better in several cases. Johannesburg Investments have put on ¼ at 3⅛, and Rietfonteins are ⅜ higher at 4⅛, the March yield of 2349 ounces being regarded as satisfactory. Langlaagte Royals have improved 1/16

to 2$\frac{7}{16}$, and a similar gain is shown in May Consolidated at 3$\frac{1}{16}$, the buying of the latter being attributed to the Cape. New Primrose at 6$\frac{1}{16}$, Spes Bona at 1$\frac{1}{8}$, and Crœsus at 1$\frac{13}{16}$, are all $\frac{1}{8}$ up, whilst Ginsberg at 1$\frac{5}{16}$, and Kimberley Roodepoort at 2$\frac{1}{4}$ are slightly easier. Barnato Banks are unchanged at 1$\frac{13}{16}$, and the Consols a shade harder at 3$\frac{3}{8}$. In the Robinson group the feature has been the support accorded to the Randfontein parent and babies. The former is $\frac{1}{16}$ higher at 3$\frac{5}{8}$, whilst Block B at 1$\frac{11}{16}$, and Langlaagte at 5$\frac{3}{4}$, are sympathetically up $\frac{1}{8}$. Robinson Banks are unchanged at 6$\frac{3}{8}$. The persistent buying of East Rands, which set in simultaneously with the closing of the Comet battery, has been renewed with the effect of carrying up the shares 10s. to 6$\frac{7}{8}$. St. Angelo has scored $\frac{3}{8}$ at 5$\frac{3}{8}$, Comet $\frac{1}{4}$ at 3, and Anglo French $\frac{1}{16}$ at 4$\frac{13}{16}$, after touching 5 this morning. Rand Mines are half a point up at 28$\frac{3}{4}$. The Geldenhuis crushing for March, showing a yield of 3684 ounces, works out at the rate of 4 dwts. 12 grains per ton. The shares are $\frac{1}{4}$ higher at 6$\frac{3}{4}$, and small gains are shown in Nigel Deep at 1$\frac{7}{8}$, Nourse Deep at 4$\frac{1}{2}$, and Roodepoort Deep at 3$\frac{1}{8}$. The Eckstein Group has benefited by the announcement of several highly satisfactory crushing returns. In the case of Ferreira and Henry Nourse, for instance, there is an improvement of no less than 1000 ounces for March as compared with February. The former shares have improved 1$\frac{1}{4}$ to 19$\frac{3}{4}$ and the latter $\frac{1}{2}$ to 6$\frac{1}{4}$. Geldenhuis at 4$\frac{1}{4}$, Heriot at 9, Jubilee at 9$\frac{3}{8}$, Modders at 9$\frac{7}{8}$, and Salisbury at 4$\frac{3}{8}$, are all small fractions higher, whilst Wemmer at 10, Simmer and Jack at 20$\frac{1}{2}$, and City and Suburban at 4$\frac{3}{8}$, are maintained in *statu quo*. An improvement of 450 ounces in the March return of the Meyer and Charlton has helped the shares to a spurt of $\frac{3}{8}$ at 5$\frac{1}{4}$. Apex, a share in which dealings are by no means extensive, has jumped up 1$\frac{1}{4}$, closing at 9. Orions have been specially flat, closing $\frac{7}{8}$ lower at 1$\frac{15}{16}$. Bantjes were bought from the Cape, and leave off $\frac{1}{8}$ better at 3$\frac{11}{16}$. Another share which has been significantly supported is Eastleigh $\frac{1}{8}$ higher at 1$\frac{7}{16}$. Shebas were conspicuously active on Tuesday, but have relapsed to their starting point—2$\frac{7}{16}$. The March crushing showed a yield of 12,500 ounces. Transvaal Gold at 5$\frac{1}{8}$ and Wolhuter at 8 are each half a point to the good, but other changes are restricted to $\frac{1}{8}$. These are in the upward direction in the case of Durban-Roodepoort at 6$\frac{3}{8}$, Kleinfontein 3$\frac{3}{4}$, Knights at 5$\frac{1}{8}$, Robinson at 9$\frac{1}{8}$, Van Ryn 5$\frac{1}{2}$, and Van Ryn West at 3$\frac{1}{8}$, whilst Crown Reefs at 10$\frac{3}{4}$, and Minerva at 1$\frac{7}{16}$ have lost ground. There is no change to talk about in the small Lydenburg group beyond a gain of 1s. 6d. in Spitzkops at 16s. Diamond shares have been fairly good, De Beers closing $\frac{3}{4}$ higher at 28, and Jagers $\frac{1}{8}$ up at 10$\frac{1}{4}$.

West Australians.

Properties in the Hannan's districts have claimed the lion's share of attention this week. Great Boulders have been extensively purchased, and close $\frac{5}{16}$ higher at 7$\frac{13}{16}$, and gains of $\frac{1}{16}$ or so are marked in North Boulder at 7s., and West Boulder at 1. A large business has been done in Golden Cements, which at one time touched 1$\frac{1}{8}$, and close $\frac{1}{16}$ better at 1$\frac{1}{8}$. Golden Horseshoes are $\frac{1}{8}$ better at 1$\frac{1}{8}$, after a spurt to 1$\frac{1}{16}$ on Wednesday. This drew attention to the parent company, the Golden Link, the shares of which have added 50 per cent. to their value at 1$\frac{1}{8}$. Associated rallied to 2$\frac{1}{4}$, but have given way again and are finally only the turn better at 2$\frac{1}{16}$, whilst small losses are shown in Brownhills at 6$\frac{7}{8}$, Napier at $\frac{7}{8}$, Oroya at 1$\frac{1}{4}$, Hannan's Star at 1$\frac{7}{8}$, and True Blue at 1$\frac{7}{8}$. A large business has been done in Lady Loch, the pretext being the announcement of the first crushing, which showed 7 ounces to the ton. The amount of quartz put through the mill, however, was only 25 tons, and the shares, which were bought up to 4$\frac{1}{8}$ on Wednesday, have since receded to 3$\frac{11}{16}$. It is stated that some 160,000 tons of ore are ready dumped, from which the sanguine anticipate a return of 5 ounces to the ton. Lake Views have risen $\frac{1}{16}$ to 4$\frac{1}{8}$. There has been less excitement in the Menzies group, but Reefs are a shade harder at 1$\frac{1}{8}$, whilst Gold Estates have lost $\frac{1}{8}$ at 1. White Feathers are the turn easier at 2$\frac{7}{16}$, the March return of 575 ounces from 200 tons shows an average of nearly 2$\frac{1}{2}$ ounces. Good buying is reported in West Australian Goldfields, which have touched 8, and are but slightly below that figure at the close. A further improvement to 10 is confidently predicted. Hampton Plains are firm at 4$\frac{1}{2}$, whilst Mainland Consols are slightly easier at 2$\frac{1}{16}$. Big Blow and Mawson's Reward both figure at $\frac{11}{16}$, but whilst in the case of the former the price represents a small relapse, in the latter it shows a gain of $\frac{1}{16}$. Colonial Finance at 4$\frac{1}{2}$, and London and Globe at 2$\frac{1}{16}$, are practically unchanged. There are several other nominal changes up or down, but the foregoing fairly represents the bulk of the business.

Miscellaneous

As indicated in the opening, business in this section has been almost restricted to Indian and New Zealand varieties. The former were very firm in the earlier part of the week and although the best prices are not maintained, gains are still the order of the day. These amount to $\frac{1}{16}$ in Champion Reef at 7, and Mysore at 5$\frac{1}{8}$, to $\frac{1}{16}$ in Nundydroog at 2$\frac{1}{8}$, and $\frac{1}{4}$ in Ooregum at 3$\frac{1}{2}$. The March crushing returns have provided the immediate incentive to this buoyancy. Waihi at 6$\frac{1}{2}$ and Waitekauri at 4$\frac{1}{2}$, although both $\frac{1}{4}$ up on balance, are below the top quotations. Hauraki are unchanged at 16s. 6d. In spite of the magnificent return of 2119 ounces from 380 tons. Broken Hills were flat on Thursday, but have fully recovered to-day, closing $\frac{1}{16}$ higher at 2$\frac{1}{8}$. British are 6d. better at 17s. 6d. Gains of $\frac{1}{16}$ are marked in Wentworth at 1$\frac{3}{16}$, and Aladdin at 1$\frac{1}{8}$. In Copper shares Tintos have been exceptionally good, putting on $\frac{3}{8}$ at 18$\frac{3}{4}$, whilst Tharsis at 5$\frac{1}{8}$, and Libiola at 3$\frac{1}{4}$ are $\frac{1}{4}$ down, and Anaconda has declined $\frac{1}{4}$ to 6. There is practically nothing to report in other departments.

STOCK EXCHANGE SETTLING DAYS.

CONSOLS.

Wednesday, May 6.

MINING MAKING-UP DAYS:

Saturday, April 11 | Saturday, April 25

MINING NAME DAYS:

Monday, April 13 | Monday, April 27

ACCOUNT DAYS:

Wednesday, April 15 | Wednesday, April 29

THE OOREGUM GOLD MINING COMPANY OF INDIA (LIMITED) have sold the gold obtained in February for £23,088 4s. 7d.

A NEW FINANCIAL PAPER.—A paper that will shortly make its appearance in London financial circles, is called *The Shareholder*, which has avowedly been called into being by the enormous increase which has latterly taken place in the number of similar journals in London. Its purpose is, we understand, to be a sort of financial review of reviews, and if, according to its present promise, it makes a pithy presentiment of the matter contained in the leading London journals devoted to financial and company matters, business men who have no time to wade through sheet after sheet of criticism, prophecy, and advice, will owe its originators a debt of gratitude.

THE METAL MARKETS.

LONDON METAL MARKET.

THE METAL MARKET, LONDON, APRIL 10.

Copper.

THE G.M.B. market opened firm with a rise of 10s. per ton, three months being dealt in at up to £45 17s. 6d., and spot at up to £45 12s. 6d., while the transactions for the day (Tuesday) totalled about 1500 tons. On Wednesday 1200 tons were done at £45 7s. 6d. to £45 3s. 9d. s.c., and £45 15s. to £45 10s. three months, whilst Thursday brought a further relapse to £44 17s. 6d. s.c. and £45 1s. 3d. three months, the fall being principally due to speculative sales emanating from a single source. To-day's market brought a sharp drop to £44 10s., and we closed steady at a shade above the worst—viz. at £44 11s. 3d., £44 12s. 6d. s.c., and £44 15s., £44 16s. 3d. three months. Consumers are busy, but there is very little inclination to buy, the heavy exports from America and the lower prices asked for refined copper acting rather as deterrents.

Tin

Has shown no element of strength this week. Business was very limited on the opening day, and the prices realised were £60 5s. and £60 6s. 3d. s.c. and £60 16s. 3d. three months. On Wednesday and Thursday transactions were more extensive, but rales being rather pressed, values went down to £59 16s. 3d. cash and £60 8s. 9d. three months. To-day brought a further fall to £19 10s. s.c. The close was quiet at £59 12s. 6d. to £59 15s. s.c. and £60 2s. 6d. to £60 5s. three months Straits. Billiton opened at 36$\frac{3}{8}$ fl. s.c., and closes at 36 fl. with Banca at 36$\frac{1}{2}$.

Pig Iron

After a quiet opening the Glasgow market improved in tone, and values rose from 46s. 8½d. s.c. Scotch to 46s. 11d. A reaction then ensued, down to 46s. 4½d. being taken for spot. The market closed flat at 46s. 5d. sellers of s.c. Scotch, and 46s. 7d. a month, with hematite and Middlesbrough at 48s. 2d. and 38s. 0½d. respectively.

Lead

is still on the downward track, the flatness having grown more accentuated during the week under review. The close is dull at £11 for soft foreign, and £11 5s. for English.

Spelter.

The tendency which prevailed last week still obtains, the market being very firm and stocks small. The final values are £15 10s. to £15 12s. 6d. ordinaries, and £15 12s. 6d. to £15 15s. specials.

Antimony

is quiet, but steady at £30.

Quicksilver

closes at £6 17s. 6d, firsts, and £6 16s. 6d. seconds.

The following are to-night's (April 10) prices of metals:—

	£ s. d.	£ s. d.
Copper.		
Tough cake and ingot	43 5 0	43 15 0
Best selected	43 5 0	43 15 0
Electrolytic Copper	50 0 0	51 0 0
Sheets and sheathing	—	56 0 0
Flat bottoms	—	59 0 0
Chill bars	—	—
Good merchantable, spot, & 3 months respectively	44 12 6	44 16 3
Copper tubes, seamless	—	0 0 7¼
Alloys.		
BRASS: Wire	—	0 0 5¼
,, Tubes (solid drawn)	—	0 0 6¼
,, Sheets	—	0 0 6
PHOSPHOR BRONZE: Alloys II.	—	78 0 0
,, ,, III. or Cog Wheel Brand	—	81 0 0
,, ,, VII.	—	83 0 0
,, ,, XI.	—	78 0 0
,, ,, Vulcan brand A1	—	72 0 0
DURO METAL	—	73 0 0
BULL'S METAL	—	65 0 0
Ferrobronze (Vivian's).		
Ingots ...per lb.	0 0 5¾	—
Ordinary sheets, plates, bolts and bars	0 0 6¾	—
Screw bolts and nuts	0 0 8¼	—
Pump rods, plain	0 0 7¼	—
,, finished	0 0 10¾	—
DELTA METAL: No. 4 (per ton)	—	—
,, Sheets and plates (per lb.)	—	—
,, Bars, round, square, flat (per lb.)	—	—
,, ,, hexagon (per lb.)	—	—
Tin.		
English, ingots, f.o.b.	83 10 0	84 0 0
,, bars	84 10 0	85 0 0
,, refined	85 10 0	86 0 0
Straits, spot and 3 months respectively	59 15 0	60 5 0
Australian spot, and three months respectively	60 12 6	61 2 6
Banca ,, (in Holland)	61 0 0	61 2 6
TIN PLATES: Charcoal, best quality ... per box	0 14 0	0 17 6
,, ,, ordinary	0 10 9	0 13 6
,, Coke, best quality	0 9 6	0 9 9
,, ,, ordinary	0 9 0	0 9 3

These price of tinplates are f.o.b. at Swansea; at Liverpool 6d. per box more.

Iron.		
Pig, G.M.B., f.o.b., Clyde, spot	—	2 6 5
,, Scotch pig, No. 1 Gartsherrie	—	2 11 6
,, ,, Coltness	—	2 13 6
,, ,, Clyde	—	2 10 6
,, ,, Govan	—	2 8 6
Bars, Welsh, f.o.b. Wales	—	5 5 0
Plates ,, ,,	—	6 5 0
Bars, Staffordshire, at works	—	5 5 0
Sheets ,, ,,	—	6 10 0
Plates ,, ,,	—	6 7 6
Hoops ,, ,,	—	5 15 0
Ship plates, Middlesborough	—	5 1 3
STEEL: English spring	—	10 0 0
,, ,, cast	—	42 0 0
,, Rails at works, according to section	—	5 0 0
Lead.		
Spanish or soft foreign	—	11 0 0
English pig, common	—	11 5 0
,, L.B.	—	11 12 6
,, sheet and bar lead	—	12 5 0
,, pipe	—	12 15 0
,, red	—	14 10 0
,, white	—	17 10 0
,, patent shot	—	15 0 0
Spelter.		
Silesian ordinary brands	15 10 0	15 12 6
,, special brands	15 12 6	15 15 0
English Swansea	—	16 5 0
Sheet Zinc	13 10 0	13 15 0
Antimony.		
Antimony	—	30 0 0
Quicksilver.		
Flasks, 75 lbs. warrants	6 1 6	6 17 6
Manganese.	per unit.	
Ore, c.i.f., U.K. ports		
1st quality, 50 per cent. and upwards	0 0 11	0 1 1
2nd ,, 47 per cent. to 50 per cent.	0 0 10	0 1 0
3rd ,, 40 ,, 47 per cent.	0 0 9	0 0 11
Aluminium.		
93–96½ per cent. (guaranteed 98 per cent. min.) in ingots (1 cwt. lots)	Per lb. —	Per lb. 0 1 6
do do (1 ton lots)	—	0 1 4½
Nickel.		
98–99 per cent. guarantee	0 1 2	0 1 6

THE INSTITUTE OF SECRETARIES.—At the London Institution, on Thursday evening, a lecture, entitled "Phases of Panics," was delivered by Mr. Charles Woolley, F.R.G.S., President of the Institute of Secretaries, to the members and friends of that body. The ground traversed dated from 1837 to 1893, the former introducing and dealing with the railway mania continued and intensified in 1847, 1857 being identified with American over finance as 1866, the date of the failure of Overend, Gurney, and Co., also was 1875, the Collie year was dealt with exhaustively followed by the City of Glasgow Bank fiasco in 1878, while 1890 yielded suitable matter by reference to Baring Brothers and Co. Australia came under notice in connection with 1893, the year of the bank failures there, and in contrast with these disastrous records the lecturer suitably introduced inventions and other elements of progressive development as compensatory influences.

"THE MINING JOURNAL" SHARE LIST.

ABBREVIATIONS AND REFERENCES.—The following are the significations of the abbreviations and references which occur in the Share List:—*Ay*, Antimony; *A*, Arsenic; *Bl*, Blende; *Bx*, Borax; *C*, Copper; *D*, Diamond; *G*, Gold; *I*, Iron; *L*, Lead; *M*, Mundic; *N*, Nitrates; *P*, Phosphates; *Q*, Quicksilver; *R*, Ruby; *S*, Silver; *Sl*, Silver-lead; *Sul*, Sulphur; *T*, Tin; and *Z*, Zinc. * in the "Amount of Share" column of British Mines signifies that the mine is conducted on "Cost Book" principles; ‡ in the "Head Office" column of African Mines signifies that the address given is not that of the head office, but of a sub, or transfer office; and † following the names of African Mines, signifies that they are subject to the Limited Liability Law of the South African Republic.

*** The following is by far the most complete and comprehensive list of mines, in whose shares business is being currently transacted, published. Additions will be made from time to time as occasion requires. Every effort is made to ensure accuracy, and Secretaries of Companies, Share Dealers, and our readers generally, are cordially invited to co-operate with us to this end, by notifying us of any errors that may at any time occur. We desire it to be understood that, while our Share List will almost invariably be found correct, we do not hold ourselves responsible for any loss or inconvenience that may arise from possible inaccuracies.

AFRICAN MINES.

Name.	Closing Price. Apr.10, 1896		Closing Price Apr 1, 1896		Am't. of Share	When last XD and Dividend.	Called up Per Share.	Amount of Stock or No. of Shares issued.	Situation of Mine.	Head Office.
					£		£ s. d.			
Abbott's Con. Reefs	6/	7/	3/8	3/4	1 0	—	1 0 0	—	De Kaap	Broad Street Avenue
Aldier Consolidat.	1	1 1/8	1	1 1/8	1 0	—	1 0 0	250,000	—	1, Moorgate place.
African Estates......	2 3/16	2 5/16	2	2 1/8	1 0	2/& rtsOc.16 95	1 0 0	438,600	,,	3, Copthall-buildings
,, Gold Rcvry.	1 1/8	1 1/4	1 1/8	1 1/4	1 0	rts Oct 30 '95	1 0 0	175,000	—	23, College Hill,
Africana	5/8	3/4	9/16	11/16	1 0	—	1 0 0	1,075,000	—	34, Clement's lane
Afrikander	1 3/16	1 5/16	1 3/16	1 5/16	1 0	rts May 24 '95	1 0 0	40,000	Transvaal.	33, College Hill
Alexandra Estate *G*	5/8	3/4	5/8	3/4	1 0	—	1 0 0	225,000	Rand	16, George street
Anglo-French Exp.	4 3/4	4 7/8	4 11/16	4 13/16	5 0	15% Aug 29 '95	5 0 0	30,300	S. Africa	3, Princes street
,, Matabeleland	2	2 1/8	2 1/8	3	1 0	—	1 0 0	39,750	Matabld.	Winchester House.
Appantoo ...... *G*	—		—		1 0	—	1 0 0	77,885	West Cost	Dashwood House.
Aurora .... *G*	1 1/8	1 3/8	1 1/8	1 3/8	1 0	5% Mar. '93	1 0 0	65,000	Rand	8, Old Jewry.‡
,, West United.	1 1/4	1 3/8	1 1/4	1 3/8	1 0	—	1 0 0	100,000	,,	7, Lothbury
Austral-African ...	1	1 1/8	1	1 1/16	1 0	3/-Dec. 16 '95	1 0 0	250,000	—	Token.Ho., CpthllAv
Baikie Eerstelling *G*	2/6	3/	2/9	3/3	10/	—	0 10 0	520,000	Transvaal	85, Gracechurch-st.
,, Land	5/6	6/-	5/9	6/3	10/	1/ Feb. 13, '96	0 0 0	520,000	,,	,,
Bantjes Consol ... *G*	3 7/8	4	3 3/4	3 7/8	1 0	rts Sep 24 '95	1 0 0	83,000	,,	15, Geo. st., Mn Ho.
Barnato Bank	1 3/4	1 7/8	1 3/4	1 7/8	1 0	—	1 0 0	2,625,000	—	7, Lothbury
,, Consol ...	3 1/16	3 3/16	3	3 1/8	1 0	—	1 0 0	1,000,000	—	,,
Barrett......... *G*	11/	11/6	11/3	11/9	10/	—	0 9 0	207,496	De Kaap	17, Basinghall-street
Bechuanaland Exp.	1 11/16	1 13/16	1 11/16	1 13/16	1 0	rts Jy 24 '95	1 0 0	400,000	Bechuana.	19, St. Swithin's-lane.
,, Trad'g Assoc.	1 1/4	1 3/8	1 3/8	1 5/8	1 0	5 pc Jan 16, 96	1 0 0	100,000	,,	72, Basinghall street
Ben Trovato	5/8	3/4	9/16	11/16	—	—	— 0	—	—	2, Austin Friars.
Big Golden Quarry	/6	1/	1/	1/6	5/-	—	0 5 0	483,226	Kaap Rivr	Warnford Court,
Block "B" Lang.	1 5/8	1 3/4	1 1/2	1 5/8	1 0	—	1 0 0	535,000	Rand	8, Princes-st, E.C.‡
Bonanza	2 3/8	2 7/8	2 1/8	2 1/2	1 0	—	1 0 0	200,000	Turffont'n	120, Bishopsgate-st.
Brit. S. A. Char. ..	4 5/16	4 1/4	4 1/8	4 1/4	1 0	rts Jy 26 '95	1 0 0	1,999,760	S. Africa	15, St. Swithin's-lane
Buffelsdoorn...... *G*	3 1/8	3 1/4	3	3 1/8	1	16/- Nv. 28 '95	1 0 0	250,000	Potchefstr	7, Lothbury.
,, Central	1/2	3/4	1	1 1/8	1 0	—	1 0 0	—	—	8, Old Jewry
,, Consolidated	5/8	3/4	5/8	3/4	1 0	—	1 0 0	225,000	—	Warnford Court
Cape Asbestos	3/4	1	3/4	1	1 0	—	1 0 0	50,311	Orange Rv	19, St. Swithin's-lane
,, Copper ...... *C*	2 5/16	2 7/16	2 5/16	2 7/16	2 0	2/6 D 16, '95	2 0 0	300,000	Cape Col.	9, Queen-street-place,
,, 6% Pref. ...	2 3/8	2 5/8	2 3/8	2 5/8	2 0	2/6 Dec 16, '95	2 0 0	45,000	,,	,,
Cassel Coal............	1 11/16	1 13/16	1 11/16	1 13/16	1 0	7½pcMar27'96	1 0 0	75,000	Johanbrg.	99, Cannon-street.
Con. de Kaap	1/3	1/9	1/3	1/9	5/-	—	0 2 6	—	De Kaap	Palmerston Bldgs
,, Roodp't Deep	2	2 1/4	2 1/8	2 1/4	1 0	—	1 0 0	210,000	—	120, Bishopsgate st.
Champ d'Or...... *G*	2	2 1/4	2	2 1/4	1 0	3/2 Feb. 27 '96	1 0 0	116,016	Rand	8, Old Jewry, E.C.
Charterland G.F ...	11/16	13/16	13/16	15/16	1 0	—	1 0 0	150,000	—	19, S. Swithin's lane
Chimes West	1 1/8	1 3/8	1 1/4	1 1/2	1 0	—	1 0 0	150,000	—	Winchester Ho.
City and Sub. Nw *G*	4 1/4	4 1/2	4 1/4	4 1/2	4 0	10/- June '95	4 0 0	340,000	Rand	Gresham Ho.
Con. Bultfontein *D*	32/6	33/6	32/6	33/6	1 0	9d, Jan. 16 '96	1 0 0	721,500	Griqualnd	62, Lombard-st
Con. Deep Levels *G*	5	5 1/8	5	5 1/8	1 0	4/- Jy 11 '95	1 0 0	187,250	Transvaal	30, St. Swithin's-lane
Con. G. Fields S A.	12 1/8	12 3/8	12 1/4	12 3/8	1 0	20/ Nov. 14 '95	1 0 0	1,250,000	S. Africa	8, Old Jewry.
Do. 6% Pref.	25/-	25/6	24/	25/	1 0	7 1-5d Dc30'95	1 0 0	1,243,999	,,	,,
Do. 5½% Deben...	109	110	106½	107½	5 0	5½ Jan. 2 '96	5 0 0	600,000	,,	,,
Crown Deep ...... *G*	10 1/4	10 3/4	10 1/2	10 3/4	1 0	—	1 0 0	250,000	Rand	120, Bishopsgate-st.
,, Reef ...... *G*	10 5/8	10 7/8	10 3/4	11	1 0	10/-Jan. 16 '96	1 0 0	120,000	,,	,,
DeBeers Consol. *D*	28 1/4	28 3/8	27 1/2	27 3/4	5 0	15/- Jan. 16 '96	5 0 0	789,791	Kimberl'y	62, Lombard-street.
Do. 5% 1st Deb....	108 1/4	109 1/2	109 1/2	110 1/2	—	5% Jan. 2 '96	—	£3,500000	,,	,,
Do. 5½% Bul. Ob.	102	104	105	107	—	5½% Oct, '95	—	720,000	,,	,,
Doornkop	4/6	5/6	4/6	5/6	1 0	—	1 0 0	250,000	Doornkop	Warnford Court
Driefontein	2 13/16	2 15/16	2 1/8	2 3/8	1 0	—	1 0 0	175,000	—	Winchester Ho.
Durban Roodept. *G*	6 1/4	6 1/2	6	6 1/4	1 0	3/- Dec, 18 '95	1 0 0	£125,000	Rand	28, Leadenhall-bldgs
Deep.........	3 3/4	4	3 3/4	4	—	—	—	—	—	
Eastleigh .... *G*	1 1/8	1 1/4	7/8	1	1 0	—	1 0 0	240,000	Klerksdrp	52, Leadenhall Street
East Orion.........	1/8	1/4	3/16	5/16	1 0	—	1 0 0	275,000	Rand	8, Old Jewry.
,, Rand......... *G*	6 13/16	6 15/16	6 5/16	6 7/16	1 0	—	1 0 0	570,000	,,	170, Winchester-ho.
Evelyn .... *G*	1	1 1/8	1	1 1/8	1 0	10% Jan. '89	1 0 0	66,000	,,	28, Old Jewry, E.C.
Exploration	3 1/8	3 1/4	3 1/8	3 1/4	1 0	5/- Mar. 12 '96	1 0 0	148,000	S. Africa	30, S. Swithin's-ln.‡
Exploring L & M...	1 1/4	1 3/8	1 3/16	1 5/16	1 0	2/ Dec. 16, '95	1 0 0	215,215	,,	19, ,,
Ferreira .... *G*	19 1/2	20	18 3/4	13 3/4	1 0	13/ Mar. 12 '96	1 0 0	45,000	Rand	120, Bishopsgt st. Wn‡
French Rand	2	2 1/2	2	2 1/2	1 0	—	1 0 0	480,000	Rand.........	28, Aus in Friars.
Geldenhuis Deep *G*	6 1/4	6 3/4	6	6 1/2	1 0	—	1 0 0	265,000	Transvaal .	30, St. Swithin's-lane.
Geldenhuis Est. *G*	4 1/2	4 3/4	4	4 1/4	1 0	6/- Jy 26 '95	1 0 0	187,500	Rand	120, Bishopsgt st, Wn‡
,, Main Reef	1 1/16	1 3/16	1	1 1/8	1 0	2/ Feb, 13 96	1 0 0	150,000	,,	Warnford Court, E.C
George Goch ... *G*	2 7/16	2 9/16	2 3/8	2 1/2	1 0	—	1 0 0	100,000	,,	Johannesburg.
Ginsberg New ... *G*	1 9/16	1 11/16	1 5/8	1 3/4	1 0	—	1 0 0	130,000	Drietfon .	Warnford Court, E.C‡
Glencairn .... *G*	3 9/16	3 11/16	3 9/16	3 11/16	1 0	2/6 Feb. 13 '96	1 0 0	200,000	Rand	2, Drapers-gardens.
Gld. Fls. Deep... *G*	9	9 1/4	8 3/8	8 5/8	1 0	—	1 0 0	600,000	S. Africa	8, Old Jewry.
G.F. of Lydenb'rg	2 3/4	3	2 3/4	3	1 0	—	—	—	Lydenb'rg	7, Lothbury.
G. F. of Mashonld.	1/4	1/2	3/8	1/2	1 0	—	1 0 0	200,000	Mashonld.	19, St. Swithin's-ln.
Graskop .... *G*	5/3	5/9	4/9	5/3	5/-	2½% Mar. '92.	0 5 0	400,000	Lydenburg	2, Tokenhouse Bldgs
Gt. Estrn. Colliery	1	1 1/4	1 1/8	1 3/8	1 0	—	1 0 0	376,666	Grootolei	8, Finch Lane
Griqualand W.... *D*	8 1/4	8 1/2	8 1/4	8 1/2	10 0	1/ Jan 16, '96	10 0 0	105,700	Transvaal .	62, Lombard-street
Heidelbg. Est. Ex.	13/16	1 1/16	13/16	15/16	1 0	—	—	—	Heildelbg.	
Henderson's Trans	2 1/4	2 1/2	2 3/16	2 5/16	1 0	—	1 0 0	250,000	Zoutpanbg	85, Gracechurch st.
Henry Nourse ... *G*	6 3/8	6 5/8	6 1/8	6 3/8	1 0	—	1 0 0	100,000	De Kaap ...	Warnford-court.
Hetty	5/8	3/4	11/16	13/16	1 0	—	1 0 0	110,000	Middlevel.	55, Bishopsgate st Wn
Joe's Reef .... *G*	3/16	5/16	3/16	5/16	1 0	—	1 0 0	57,404	,,	21, Mincing Lane.
Johannesbrg Invst	3 7/16	3 9/16 xd	3 3/16	3 5/16xd	1 0	20% Oct. '95	1 0 0	650,000	—	7, Lothbury.
,, Pioneer	10	10 1/2	9 1/2	10	1 0	12½% Nov., '93	1 0 0	21,000	Rand.........	Johannesburg.
Jubilee .... *G*	9 1/4	9 1/2	9	9 1/4	1 0	6/ Nov. 28 '95	1 0 0	30,000	,,	8, Old Jewry.†
Jumpers .... *G*	6 3/8	6 5/8 xd	6 1/2	6 3/4xd	1 0	6/- Mar. 27 '96	1 0 0	100,000	,,	120, Bishopsgt st, Wn‡
,, Deep......	3 1/4	3 1/2	3 1/4	3 1/2	1 0	—	1 0 0	300,000	,,	30, S. Swithin's lane.
Kimberley .... *D*	1/4	1/2 pm	5/16	7/16 pm	1 0	2/ Jan 16. '95	0 10 0	98,672	Kimberley	19, Finsbury circus.
,, Rdpt....	2	2 1/2	2 1/4	2 1/2	1 0	—	1 0 0	125,000	,,	2, Drapers-gardens.
Klerksdorp	13/9	14/3	13/3	13/9	10/-	—	0 9 0	400,000	Klerksdorp	110, Cannon St.
Knight's Deep	2 1/4	2 1/2	2 3/8	2 7/8	1 0	—	1 0 0	295,194	Rand.........	8, Old Jewry
Koffyfontein...... *D*	1	1 1/8	1	1 1/8	1 0	—	1 0 0	125,000	Jacobsdaal	6, Gt. St. Helen's.
Lancaster	1 13/16	1 15/16	1 13/16	1 15/16	1 0	—	1 0 0	226,500	Luip. Vlei	120, Bishopsgt st. Wn
Langlaagte Est. *G*	5 5/8	5 7/8	5 1/2	5 3/4	1 0	5/ Feb 13 '96	1 0 0	470,000	Rand.........	59, Holborn Viaduct
,, Royal	2 3/8	2 5/8	2 1/16	2 5/16	1 0	rts. Mar. 6 '95	1 0 0	100,000	,,	2, Drapers-gardens.
,, Star...	1 7/8	2 1/8	2	2 1/8	1 0	—	1 0 0	170,000	,,	
Lisbon-Berlyn ... *G*	6/9	7/3	6/6	7/	2/6	—	0 2 6	883,233	Lydenburg	Suffolk House,
Lon. Paris Fin & M.	13/16	15/16	1	1 1/8	1 0	—	1 0 0	500,000	—	53, Old Broad Street.
London & S. A. Ex.	14	14 1/2	13 3/4	14 1/4	10/	4/-Mar. 12 '96	0 10 0	100,000	S. Africa ...	19, Finsbury-circus.
Luipaards Vlei Est.	15/16	1 1/16	7/8	1	1 0	6% Mar, '90	1 0 0	319,003	Rand...... ...	Warnford-court.‡
Lydenburg Estate.	1 5/16	1 7/16	1 3/8	1 5/8	1 0	—	1 0 0	190,000	Lydenburg	85, Gracech. Street
,, Ld & Expl	5/8	3/4	3/4	1	1 0	—	1 0 0	200,000	,,	120, Bishopsgte St.
,, M'g. Est.	5	5 1/4	4 3/4	5	1 0	—	1 0 0	300,000	,,	,,
Main Reef (New) *G*	1	1 1/8	1	1 1/8	1 0	—	1 0 0	111,500	Rand.........	15, George St., MnH
Malmani Gold Syn	3/6	4/6	10/	11/	2/6	—	0 2 6	200,000	Transvaal	Throgmorton House,
Marie Louise.........	2 7/8	3 1/8	2 7/8	3 1/8	1 0	—	1 0 0	80,000	Rand.........	15, George St, Mn H
Marievale Nigel ...	1	1 1/4	1 1/8	1 3/8	1 0	—	1 0 0	250,000	,,	,,
Mashon. Agency...	2 7/16	2 9/16	2 1/4	2 3/8	1 0	—	1 0 0	100,000	Mashonald	8, Old Jewry, E.C.
,, Central...	15/16	1 1/16	13/16	15/16	1 0	—	1 0 0	180,000	,,	,,
Matabelel'd G. R'f	3 3/8	3 5/8	4 1/4	4 1/2	1 0	—	1 0 0	110,000	Matabelel'd	3, Copthall-buildings.
May Con. (New) *G*	3	3 1/8	2 13/16	2 15/16	1 0	2/- Mar. 12 96	1 0 0	236,500	Rand..... ...	4, Lothbury.‡
Meyer & Charl.... *G*	5 3/8	5 7/8	5 1/4	5 1/2	1 0	5/ Feb. 13 96	1 0 0	75,020	,,	1, Crosby Square.‡
Minerva	1 3/8	1 1/2	1 7/16	1 9/16	1 0	—	1 0 0	150,000	,,	Winchester House.
Mines Selection ...	7/8	1 1/8	7/8	1 1/8	1 0	—	1 0 0	100,000	—	33, Br'd St. Avenue,
Modderfontein.. *G*	9 3/4	10	9 5/8	9 7/8	1 0	—	1 0 0	200,000	Rand.........	13, George Street
,, "B" Extensn.	2 7/16	2 9/16	2 1/8	2 3/8	—	—	—	—	—	28, Austin Frias
Molyneux Consoli.	1 3/8	1 1/2	1 5/16	1 7/16	1 0	—	1 0 0	220,000	Modderftn	120, Bishopsgate st
Moodies .... *G*	3/4	7/8	3/4	7/8	1 0	-/4 May '90	1 0 0	240,000	,,	Gresham House.‡
Mozambique.........	1 1/8	1 3/8	1 1/16	1 3/16	1 0	—	1 0 0	400,000	S.E. Africa	13, Austin Friars.
Namaqua .... *C*	1 1/4	1 3/8	1 1/4	1 3/8	2 0	2/6 July '91	2 0 0	94,331	Namaqualnd	24, Leadenhall-bldgs.
New African	3 7/8	4 1/8	3 7/8	4 1/8	1 0	20/ Dec. 30 '95	1 0 0	190,000	—	83, Hatton Garden.
,, Chimes...... *G*	1 13/16	1 15/16	1 13/16	1 15/16xd	1 0	1/- Mar. 27 '96	1 0 0	100,000	Rand.........	8, Old Jewry, E.C
,, Comet	2 7/8	3 1/8	2 7/8	2 7/8	1 0	—	1 0 0	175,000	Heidelburg	Winchester-house.
,, Croesus...... *G*	1 3/4	1 7/8	1 9/16	1 11/16	1 0	rts Apr 17 '95	1 0 0	255,000	Langlaagte	120, Bishopsgt.st, Wn
,, Gordon...... *D*	6/6	7/6	6/	7/	1 0	5% Dec. '89	1 0 0	404,344	Griqualand	110, Cannon-street.
,, Heriot ...... *G*	8 7/8	9 1/8	8 3/4	9	1 0	5/ Feb. 13, '96	1 0 0	88,750	Rand.........	98, Gresham Ho EC
,, Jagersf. ... *D*	10	10 1/4	10	10 1/4	5 0	10/ Oct. 16 '95	5 0 0	100,000	Transvaal .	5, Copthall-buildings
,, Kleinfontein *G*	3 3/8	3 5/8	3 3/8	3 5/8	1 0	12½pc Mar, '95	1 0 0	82,500	Rand.........	Winchester House
,, Midas	4	4 1/4	3 7/8	4 1/8	1 0	rts.Jan. 16, '96	1 0 0	150,000	Mid'le Vlei	120, Bishopsgt-st, W
,, Primrose ... *G*	6	6 1/4	6 1/8	6 3/8	1 0	5/ Feb. 13, '96	1 0 0	278,750	Rand.........	2, Draper's-gardens.
,, Rietfontein *G*	4 1/8	4 3/8	3 7/8	4	1 0	—	1 0 0	160,000	,,	Warnford-ct., E.C.
,, S.Augustine *D*	9/9	10/3	9/6	10/	1 0	—	0 19 6	299,137	Griqu'ld W	30-1, St. Swithin's-ln
,, Spes Bona... *G*	1 3/8	1 5/8	—	1 3/8	1 0	—	1 0 0	113,701	Rand.........	24, N. John-st., L'pl.
,, Steyn Estate	1 1/16	1 3/16	1 1/8	1 3/8	1 0	—	1 0 0	125,000	Heidelberg	19, Bury Street, E.C.

AFRICAN MINES—(*Continued*).

Name.	Closing Price, Apr. 10, 1896		Closing Price, Apr. 1, 1896.		Am't. of Share	When last XD and Dividend.	Called up Per Share.	Amount of Stock or No. of Shares issued.	Situation of Mine.	Head Office.
					£					
Nigel .... *G*	3 7/8	4 1/8	3 7/8	4 1/8	1 0	rts Aug 10 '95	1 0 0	160,000	Rand.........	96, Gresham Ho., EC
,, Deep ...... *G*	1 3/4	2	1 5/8	1 7/8	1 0	—	1 0 0	195,000	Heidelberg	8 Old Jewry.
North Randfontein	2	2 1/4	1 3/4	2	1 0	—	1 0 0	235,000	—	8, Princes street
Nourse Deep.........	4 1/2	4 3/4	4	4 1/2	1 0	—	1 0 0	375,000	Rand.........	120, Bishopgt.-st., Wn
Oceana	1 11/16	1 13/16	1 11/16	1 13/16	1 0	2/-Nov. 28 '95	1 0 0	357,430	Wtrbg Lyn	13, Austin Friars.
,, Develpmnt	3/8	3/4	3/8	5/8	1 0	—	1 0 0	50,000	Heidebrg.	,,
,, Minerals ...	7/8	1	7/8	1	1 0	—	1 0 0	500,000	,,	,,
Orange F.S.E. ... *D*	3 1/8	4	3 1/4	4 1/4	1 0	10% Aug., 95	1 0 0	284,000	OrangeF.S.	10, Moorgate-street.
Orion (New)...... *G*	1 7/8	2	2 3/16	2 5/16	1 0	10% Aug., '95	1 0 0	30,000	Rand.........	8, Old Jewry.
Paarl Central ... *G*	1 1/16	1 3/16	1 1/8	1 1/4	1 0	—	1 0 0	138,750	Transvaal .	120, Bishopsgt st, Wn.
Pardy's Mozambq.	1 1/4	1 1/2	1 1/4	1 1/2 xr	10/	rts Mar 12 '96	0 10 0	13,000	S.E. Africa	Broad St. Avenue.
Piggs Peak ...... *G*	3/8	1/2	7/16	9/16	1 0	—	0 17 0	200,000	Swasielnd.	6, Queen-street-place
Porges Randfontn.	2	2 1/8	1 7/8	2 1/8	1 0	2/ Feb. 13 '96	1 0 0	457,500	Rand.........	1, Bank Buildings
Potchefstroom... *G*	11/16	13/16	11/16	13/16	1 0	—	1 0 0	389,750	Potchefstm	19, Bury-st., E.C.
Princess Estate *G*	3	3 1/8	3	3 1/8	1 0	—	1 0 0	125,000	Rand.........	33, Cornhill, E.C.
Rand Central Ore	2 3/8	2 1/2	2 7/16	2 9/16	1 0	25 p c Aug. 95	1 0 0	115,000	—	8, Princes-street, E.C.
Randfontein ...... *G*	3 1/16	2 13/16	2 13/16	2 15/16	1 0	—	1 0 0	2,000,000	Rand.........	1, Bank Buildings.
Rand Mines ...... *G*	28 3/4	29	28	28 1/2	1 0	—	1 0 0	332,798	,,	120, Bishopsgt st. Wn‡
Rand-Rhodesia Ex	15/16	1 1/16	1 1/8	1 1/4	1 0	10 p.c. Oct. '95	1 0 0	25,000	R&Rhodesa	123, ,,
Rhodesia Ex & Dv.	6 1/8	7	6 1/2	7	1 0	—	1 0 0	50,000	Mt & Mash'l	8, Old Jewry.
Robinson(SA)Bank	6 1/2	7	6 1/2	7	4 0	—	4 0 0	750,000	—	8, Prince's-street
,, Deep......	7 1/4	7 3/4	7	7 1/2	1 0	—	1 0 0	500,000	M'nR' R'nd	120, Bishopsgate st.
,, Diamond	1 3/4	2	1 1/8	1 3/4	1 0	—	1 0 0	350,000	Kaal Valley	8, Prince's street
,, Gold......	9 3/8	9 5/8	9 1/4	9 1/2	5 0	8/ Feb 12 '96	5 0 0	550,000	M. Rf.'rand	28, Austin Friars, E.C
,, Randftn.	1 9/16	1 11/16	1 3/8	1 1/2	1 0	—	1 0 0	517,000	Rand.........	8, Prince's-street.
Roodepoort Deep	3 1/16	3 3/16	3	3 1/8	1 0	—	1 0 0	170,000	,,	8, Old Jewry, E.C.
Roodepoort Un. *G*	5 1/8	5 3/8	5	5 1/4	1 0	6/ Feb 13 '96	1 0 0	130,000	,,	Warnford-court.‡
Rose Deep............	5	5 1/2	4 3/4	5 1/4	1 0	—	1 0 0	300,000	M. Rf.'rand	30-31, S.Switn's. lane.
Rothery Block......	8/	10/	3/8	5/8	1 0	—	—	—	—	55, Bishopsgate st.
St. Angelo	5	5 1/4	4 3/8	5 3/8	1 0	—	1 0 0	175,000	—	Winchester House.
St. Helen's Devel.	2 3/8	2 5/8	2 1/8	2 3/4	1 0	—	1 0 0	47,950	S. Africa ...	13, S. Helen's Place
Salisbury New ...	4 1/4	4 1/2	4 1/8	4 3/8	1 0	—	1 0 0	98,000	Rand.........	96, Gresham Ho., EC
Sheba .... *G*	2 1/8	2 1/4	2 1/8	2 1/4	1 0	1/- Sep 28 '94	1 0 0	850,000	Lydenburg	18, S. Helen's place.
Simmer & Jack... *G*	5	6	5	6	1 0	2/ Aug 14 95	1 0 0	250,000	Rand......	8, Old Jewry.
S.A Gold Trust New	8	8 1/2	7 3/4	8	1 0	15/ Feb 27 '96	1 0 0	250,000	S. Africa ...	,,
South West Rand	3/8	1/2	3/8	1/2	1 0	—	1 0 0	158,000	Rand	Winchester House.
Spitzkop (New) *G*	13/6	16/6	15/	15/	1 0	—	1 0 0	99,070	Lydenburg	15, Bishopsgt-st, Wt.
Stanhope .... *G*	1 1/16	1 3/16	1 1/16	1 3/16	1 0	2/- Oct 20 '95	1 0 0	34,000	Rand...	96, Gresham Ho., EC
Sutherland R. ... *G*	5/	6/	5/6	6/6	1 0	—	1 0 0	220,000	Zoutpan'bg	Dashwood Ho.
Tati Concessions ...	1 15/16	2 1/16	1 13/16	1 15/16	1 0	rts Jy. 22 '95	1 0 0	392,000	—	Gresham House.
Trans. Coal Trust...	1 3/4	1 7/8	1 3/4	1 7/8	1 0	1/- Apr. 96	1 0 0	439,965	Rand...	Broad-st. House, EC
,, Consolidatd	1 7/8	2 1/8	1 3/4	2	1 0	—	1 0 0	485,131	Transvaal	120, BishopsgtestWn.
,, Est. & Dev.	1	1 1/8	15/16	1 1/16	1 0	—	1 0 0	428,600	,,	10, New Broad-st. EC
,, Gen. Assoc.	2 1/8	2 3/8	2 1/4	2 3/8	1 0	10/-Mar, 12 '96	1 0 0	185,000	—	30, S. Swithn's lane.
,, Gold Exp. *G*	5 1/8	5 3/8	5 1/8	5 3/8	1 0	3/6 Jan. 16 '96	1 0 0	260,000	Transvaal .	Suffolk House, EC
,, Gold Fields	3 3/4	4	3 3/4	4 1/4	1 0	—	1 0 0	135,000	S. A. R.	120, Bishopsgt.-st. Wn
,, Land.........	3/8	5/8	3/8	5/8	1 0	—	1 0 0	79,915	Transvaal .	25, Abchurch Lane.
Treasury............ *G*	3 3/8	3 5/8	3 1/4	3 1/2	1 0	12½% Sep. '94	1 0 0	135,000	Rand.........	Warnford Court.
United Exploratn.	1	1 1/8	1 1/8	1 1/4	1 0	—	1 0 0	250,000	—	120, Bishopsgte St.
Un. Ivy Reef...... *G*	7/8	1	15/16	1 1/16	1 0	2½ Jan. '94	1 0 0	45,000	Transvaal .	110, Cannon-street.
U. Langlaagte (N) *G*	1 1/4	1 3/4	1 3/8	1 5/8	1 0	—	1 0 0	146,000	Rand.........	85, Gresham Ho., EC
,, Pioneer......	3/4	1	1	1 1/8	1 0	—	1 0 0	75,000	De Kaap ...	16, S.Helen's-pl., EC
,, Rhodsa.G F	13/16	15/16	13/16	15/16	1 0	—	0 10 0	225,500	Rhodesia...	13, George street. EC
Van Ryn .... *G*	5 3/8	5 5/8	5 1/4	5 1/2	1 0	4/- Jan. 16 '96	1 0 0	160,000	Rand.........	18, St. Swithin's-ln.
,, North ...	3/4	1	3/4	1	1 0	—	1 0 0	116,091	—	,,
,, West......	3 3/8	3 5/8	3 1/4	3 1/2	1 0	—	1 0 0	120,000	Rand	
Venterskroon	1 3/8	1 5/8	1 3/8	1 5/8	—	—	1 0 0	125,000	Rooderand	8, Old Jewry
Vesta	3/4	1	1	1 1/4	1 0	—	1 0 0	130,000	Rand	Winchester House
Village Main Reef	6 3/8	6 5/8	6 1/2	6 7/8	1 0	—	1 0 0	177,000	,,	8, Old Jewry.
Vogelstruis Estate	3 1/4	3 1/2	3 1/4	3 1/2	1 0	—	1 0 0	200,000	,,	Winchester House.
,, Cons. Deep ...	2 3/8	2 5/8	2 3/8	2 5/8	1 0	—	1 0 0	327,750	,,	16, Geo. St. Mn. Ho.
Wassau .... *G*	3/4	7/8	3/4	7/8	1 0	—	1 0 0	100,000	Gold Coast	147, Cannon-street
Wemmer .... *G*	9 3/4	10 1/4	9 7/8	10 1/8	1 0	£1 Feb 13 '96	1 0 0	55,000	Rand.........	19, Bury-street.‡†
Western Nigel......	7/8	1	15/16	1/16	1 0	—	1 0 0	207,000	Main Reef	Suffolk House.
West Rand......... *G*	1 1/8	1 3/8	1 1/8		1 0	—	1 0 0	240,000	Rand.........	13, Geo. St., Mans.Ho.
Willoughby's Con.	1 15/16	2 1/16	1 11/16	1 13/16	1 0	—	1 0 0	700,000	Mashonald	3, Copthall-bldgs.
Witwatersrand *G*	6 3/8	6 7/8 xr	6 7/8	7 1/8	1 0	—	1 0 0	250,000	Rand.........	19, Bury-st., E.C.
Wolhuter .... *G*	7 7/8	8 1/8	7 7/8	7 7/8	1 0	rts Apr 26 '94	1 0 0	130,000	,,	Warnford-court.†
Worcester .... *G*	4 1/4	4 1/2	4 1/4	4 1/2	1 0	2/-Mar 12 '96	1 0 0	90,727	Rand.........	8, Old Jewry.‡
Zambesia Explora.	2 3/4	2 7/8	2 1/4	2 3/4	1 0	—	1 0 0	65,000	Transvaal .	30-31, Clement's lane

BRITISH MINES.

Name.	Closing Price, Apr. 10, 1896		Closing Price, Apr. 1, 1896.		Am't. of Share	When last XD and Dividend.	Called up Per Share.	Amount of Stock or No. of Shares issued.	Situation of Mine.	Head Office.
Basset	1 1/4	1 3/8	1	1 1/8	£		£ s. d.			
Blue Hills ...... *CT*	1/	2/	1/	2/	*	2/- May, '81	5 19 5	5,353	Cornwall	Camborne.
Carn Brea .... *T*	4/	5/	1/4	3/8	*	2/6 Dec., '93	22 8 5	6,000	Cornwall	Carn Brea.
Cook's Kitchen .. *T*	1/4	3/8	1/4	5/8	*	—	35 15 10	4,900	,,	Camborne.
Devon Gawton *CA*	15/	20/	7/8	1	1 0	—	0 12 6	25,000	Tavistock	8, Finsbury circus.
,, Gt Cons. *CA*	20/	21/	1 1/8	1 1/4	5 0	1/6 May '95	2 0 0	10,240	Devon ...	,,
Dolcoath .... *T*	14/6	15/6	15/	16/	1 0	—	1 0 0	188,000	Cornwall	Camborne.
,, ...	4/	5/	3/6	4/6	1 0	—	0 5 0	25,000	,,	,,
Drakewalls *CTM*	/9	1/	/6	/9	5/	—	0 2 0	61,856	,,	Dashwood House.
East Halkyn.........	—		20/	25/	1 0	—	0 2 6	12,000	Flintshire	67, Lord St., Liverpl.
,, Pool ...... *AT*	2 1/4	2 3/4	2 1/4	3	*	1/6 Sept, '94	0 9 9	6,400	Cornwall	Illogan.
Great Laxey...... *L*	1 1/4	1 3/4	1 1/4	1 3/4	4 0	5/- Apr., '92	4 0 0	15,000	I. of Man	Douglas, Isle of Man.
Green Hurth ... *L*	1/6		1/6		1 0	-/6 June '89	0 19 0	1,000	Omberlnd	Newcastle.
Halkyn .... *L*	—		9	10	1 0	8/- Mar. '96	1 0 0	10,000	Flintshire	Chester.
Do. Dis. Mn. Drain	—		10	11	10 0	5% Aug. '95	10 0 0	10,000	,,	CornEx.Cmb, Chestr.
Isle of Man ...... *L*	5 7/8	6 1/8	5 7/8	6 3/8	5 0	7½% Mar. '96	5 0 0	14,000	I. of Man	Chester.
Killifreth .... *T*	6/	7/	6/	7/	*	1/6 Nov., '94	5 15 6	6,000	Cornwall	Truro.
Leadhills .... *L*	1	1 1/8	1	1 1/8	6 0	1/- Oct. 16 '95	6 0 0	20,000	Lanarksh.	30, Finsbury-circus.
Llanarmon	par		par		1 0	—	1 0 0	21,990	Denbigh	S. Werburgh Chmbrs
,, ...	par		par		1 0	—	0 15 0	3,790	Flintshire	Chester.
Levant .... *CT*	4	4 1/2	4	5	*	4/- Nov., '94	11 9 6	2,500	Cornwall	Penzance.
Nenthd&Tndle. *LZ*	1/6		1/6		1 0	6% Feb., '91	0 18 0	48,805	Nthumbld.	Newcastle-on-Tyne.
Polberro .... *T*	1/4	3/8	1/4	1/2	*	—	2 1 5	18,000	S. Agnes, Cl.	37, Walbrook.
Rhosemor .... *L*	par		par		1 0	10 p c Sept. 91	1 0 0	1,000	Flintshire	CornEx.Cmb.Chestr.
So. Condurrow *TC*	1/	2/	1/6	2/	*	3/6 Apr. '93	7 17 6	6,123	Cornwall	20, Great St. Helens
,, Crofty *TA*	1/	2/	1/8	1/4	*	—	17 10 6	5,769	,,	Pool, Cornwall.
,, Halkyn	par		par		1 0	—	1 0 0	10,000	Flintshire	S. Werburgh Chmbr
Talacre	par		par		1 0	—	0 15 0	20,000	,,	54, Forgate st., Chstr
Tincroft .... *T*	13/	15/	3/8	1 1/4	*	2/- Aug. '94	15 7 6	6,000	Cornwall	Carn Brea.
Weardale .... *L*	8/9		8/9		4 0	1/3 Oct. '90	1 10 0	60,000	Durham...	3, Lombard-court.
West Frances ... *T*	/6	1/	1/6	2/6	—	2/6 May, '89	17 1 7	6,144	Cornwall	Camborne.
,, Kitty ...... *T*	2	2 1/4	2 1/8	2 3/8	*	2/- Dec, '94	1 2 0	6,000	,,	37, Walbrook.
Wheal Agar .. *TA*	4/	5/	5/	6/	*	2/6 Aug. '88	23 15 2	6,000	,,	Redruth.
,, Friendly.. *T*	1/	1/6	1/	1/6	*	—	0 12 9	10,000	,,	2, Copthall Bldgs. EC
,, Grenville *T*	6	6 1/4	6	6 1/4	*	3/- Nov 28 '95	18 2 0	6,000	,,	7, Union-court, EC
,, Kitty...... *T*	3/	4/	1/4	3/8	*	3/- Mar. '88	4 5 6	8,590	,,	Truro.
,, Metal & F. *T*	3/	4/	3/2	4/	*	—	0 3 0	60,000	,,	14 Broad-street Av.

EUROPEAN MINES.

Name.	Closing Price, Apr. 10, 1896		Closing Price, Apr. 1, 1896.		Am't. of Share	When last XD and Dividend.	Called up Per Share.	Amount of Stock or No. of Shares issued.	Situation of Mine.	Head Office.
					£					
Alamillos .... *L*	1 1/4	1 3/8	1 1/8	1 3/8	2 0	1/9 Apr 14 '96	2 0 0	35,000	Spain	6, Queen-street-place
Consett Ore	6 1/4	6 1/2	6 1/4	6 1/2	1 0	5/- July 94	1 0 0	55,200	Spain	19, Grey-st, N'castle.
Fortuna .... *L*	1 1/8	1 3/8	1 1/8	1 3/8	2 0	1/- Apr 14 '96	2 0 0	25,000	Spain	Dashwood Ho., E.C.
Libiola............... *C*	3	3 1/4	3	3 1/4	5 0	2/- Sept. 27 95	5 0 0	50,400	Italy	6, Queen-street-place.
Linares .... *L*	5 3/4	6	5 1/8	6	3 0	9/- Apr 14 96	3 0 0	14,998	Spain	87, Cannon-street.
Mason & Barry... *C*	2 7/8	3 1/8	2 7/8	3 1/8	5 0	2/ May 23 '94	5 0 0	185,172	Portugal	6-7, Queen-street-pl.
Pestarena .... *G*	6/	7/	6/	7/	3 0	—	3 0 0	67,809	Italy	
Pontgibaud ...... *SL*	—		—		20 0	11/6 Dec. '94	20 0 0	14,000	Coueron...	
Rio Tinto .... *C*	18 3/4	19	18 3/4	18 7/8	10 0	10/- Oct.30 '95	10 0 0	325,000	Spain	30, St. Swithin's-lane
,, (1st Mrt. Bds)	101 1/2	102 1/2x	101 1/2	102 1/2	100 0	4% Apl. 1, '96	100 0 0	£3600,000	,, ...	,,
Ripanji .... *SQ*	—		—		1 0	—	0 19 0	95,000	Servia......	120, Bishopsgt-st. Wal
Tharsis......... *C Sul*	5 1/4	5 3/4	5 1/4	5 3/4	2 0	4/- Apr 26 '95	2 0 0	625,000	Spain	Glasgow.
West Prus Pre.pref	—		—		10 0	8% Dec. 95	10 0 0	365	Germany	Walbrook Ho., E.C.
,, Prussian Pre.	—		—		10 0	8% Dec. '95	10 0 0	5,460	,,	,,
,, Prussian Or.	—		—		10 0	4%, Dec. '95	10 0 0	14,050	,,	,,
Wohlfahrt .... *L*	—		—		1 0	3% Dec. '94	1 0 0	99,634	Prussia ...	17, Victoria-st. S.W
,, ...	—		—		1 1	3% Dec. '94	0 10 0	9,090		,,

"THE MINING JOURNAL" SHARE LIST—(Continued)

AUSTRALIAN AND NEW ZEALAND MINES.

Name.	Closing Price, Apr. 10, 1896	Closing Price, Apr. 1, 1896.	Am't. of Share	When last XD and Dividend.	Called up per Share.	Amount of Stock or No. of Shares Issued.	Situation of Mine.	Head Office
Abbotts 2/6pm.pd G	⅜ ⅜	⅜ ⅜	£1 0	—	£1 15 0	67,000	Murch.WA	139, Cannon-street
Achilles Gld Fld.	2/9 3/3	2/9 3/-	2/6	—	0 2 6	642,456	Otago, N.Z	11, Poultry.
Aladdins Lamp G	1¼ 1⅜	1¼ 1⅜	1 0	1/ Feb. 13 '96	1 0 0	100,000	B'knN S.W	4-6, Throg. Avenue.
Anglo-Con. G. Syn	2⅜ 2¼	—	1 0	100% '95	1 0 0	99,000	—	22, Austin Friars.
„ Founders...	35 45	—	1 0	£4 16/8 2-5d'95	1 0 0	1,000	—	„
„ French Exp	1 1⅛ pm.	1 5⁄16 1 1⁄16pm	1 0	5/- Oct 30 '95	0 10 0	40,000	W. Austral	79, Queen Street.
„ Ger.Explor.	1⅛ 1¼ pm	1 1⁄16 1 3⁄16pm	1 0	5/ Oct. 30 '95	0 10 0	50,000	„	„
Arrow Brownhill G	⅝ ⅞	¾ ⅞	1 0	—	1 0 0	90,007	Cool.,W.A.	4, Gt. Winchester St.
Assoc. Gold Mines	2 2⅛	1 15⁄16 2 1⁄16	1 0	—	1 0 0	375,000	„	20, Bucklersbury
Australasian ......G	3/9 4/3	3/9 4/3	1 0	-/6 Mar. '92	1 0 0	10,000	Gymp.Q'ld	6, Queen-st. place
Australian C	—	—	20 0	-/9 Aug. '95	7 7 6	218,315	S. Austral.	42, New Broad-street
Aus.Bro. Hill Con.	/3 /9	1/- 1/6	1 0	1/- June, '91	1 0 0	22,708	BarB.NSW	Winchester House.
Baker's Creek ...G	⅜ ⅞	⅜ ⅜	1 0	1/- May '95	0 17 6	500,000	H'gveNSW	Hillgrove, N.S.Wale.
Bardoc...........G	⅝ ¾	⅝ ¾	1 0	—	1 0 0	165,000	W. Austral	43, Threadneedle st.
Bayley's Reward G	4/9 5/3	4/9 5/3	1 0	-/4 Dec. 94	1 0 0	480,000	Coolgardie	F'sb'y. H. Bl'mf'ld St.
Big Blow ....G	⅜ ¾	11⁄16 13⁄16	1 0	—	1 0 0	150,000	„	15, Cannon Street.
Blackett's Claim G	⅜ ⅝	⅜ ⅝	1 0	—	1 0 0	55,000	„	16, St. Helen's Place.
Black Flag Consld.	1 7⁄16 1 9⁄16	1 7⁄16 1 9⁄16	1 0	—	—	—	W. Austral	4, Bishopsgte St. Wn
„ Propty.	¾ ⅞	¾ ⅞	1 0	—	1 0 0	140,000	Coolgardie	1, Metal Exch. Bldgs
Blagroves Freehld	4/ 4/6	4/ 4/6	2/6	—	0 2 6	500,000	Corom. N Z	Dashwood House.
Bonnie Dundee G	6/ 7/	6/ 7/6	1 0	—	0 18 6	120,000	C. T.Q'land	16, S. Helen's Place
Brilliant.........G	13⁄16 15⁄16	13⁄16 15⁄16	2 0	-/3 Feb 18, '96	2 0 0	250,000	„	Charters Towers.
„ Block...G	1⅜ 1⅜	1 7⁄16 1 9⁄16	1 0	-/6 Dec 16 '95	1 0 0	70,000	„	16, S. Helen's Place
„ St.Geo. G	1⅜ 1⅞	1 13⁄16 1 15⁄16	10/	-/9 Mar. 26 '96	0 10 0	72,000	„	Charters Towers.
Brit. Brok. Hill S	17/ 18/	16/ 17/	1 0	—	1 0 0	240,000	N.S. Wales	Dashwood Ho., E.C.
Broad Arrow	2/3 2/9	2/3 2/9	5/	—	0 4 6	100,000	W.Feather	57, Moorgate Street.
Broken Hill Prop. S	2 5⁄16 2 7⁄16 xd	2¼ 2⅜	8/	1/- Mar 27 '96	0 8 0	960,000	N. S. Wales	3, Gt. Winchester st.
Brownhill Prouty.	¾ 1	¾ 1	1 0	—	1 0 0	125,000	„	4, Gt. Winchester st
Burbank s Birthd'y	1 3⁄16 1 5⁄16	1 3⁄16 1 5⁄16	1 0	—	1 0 0	160,000	Coolgardie	Copthall House.
Caledonian ......G	1/6 2/6	2/6 3/6	1 0	—	—	120,000	W. Austral	Portland House.
Cassidy Hill ......G	1⅜ 1⅜	1 5⁄16 1 7⁄16	1 0	—	1 0 0	115,000	Coolgardie	35, New Broad Street
Central Boulder G	¾ ⅞	¾ ⅞	1 0	—	1 0 0	93,522	K'lg'rl,WA	Wor'st'r Ho., Walbr'k
„ Exp. & Invst.	⅛ dis par	⅛ dis par	1 0	4·8d Mar 13'96	—	—	W. Austral	1, Met. Exchg. Bldgs
„ „ of W.A.	1 3⁄16 1 5⁄16 xd	1 3⁄16 1 5⁄16 xd	1 0	1/7¼ Mar 27'96	1 0 0	122,000	W. Austral	2, „
Charters Tow. ...G	1/ 1/6	1/ 1/3	10/	—	0 9 6	200,000	Queenslnd	110, Cannon Street
„ Consolid....	/6 1/	/6 1/	10/	—	0 9 6	300,000	„	11 „
Colonial Finance...	4 4¼ pmx	4¼ 4⅛pmxd	1 0	10/ Mar. 27 '96	0 10 0	21,140	W. Austral	139 „
„ Gold Fields	9⁄16 11⁄16pm	9⁄16 11⁄16pm	1 0	—	0 12 6	75,250	„	73, Cornhill.
Con. G. M. of W. A.	7⁄16 9⁄16	½ ⅝	1 0	—	1 0 0	246,779	Pilbarra ..	30, Moorgate Street.
„ Murchison ...	11⁄16 13⁄16	9⁄16 11⁄16	1 0	—	1 0 0	225,533	Murc.,W A	Broad Street House.
Contl. & W.A. Trust	⅞ 1⅛	⅞ 1⅛	1 0	—	1 0 0	104,467	W. Austral	Broad Street House.
Coolgardie Gold ...	⅞ 1⅛	13⁄16 15⁄16	10/	1/ Feb. 16 '96	0 5 0	90,000	Cool.W.A.	Broad Street Avenue.
„ Mint & I.Kg.	15⁄16 1 1⁄16	15⁄16 1 1⁄16	1 0	—	1 0 0	150,000	„	30, S. Swithin's ln.
Craven' Cal. ... G	1/6 2/6	1/6 2/6	6/	-/3 June 94	0 4 6	100,000	Queenslnd	30-1, S. Swithin's-le.
Croesus So. United	1 5⁄16 1 7⁄16	15⁄16 1 1⁄16	1 0	—	1 0 0	115,000	Hann'sWA	Blomfield House
Crown United......	13⁄16 15⁄16	⅞ 1	1 0	—	1 0 0	75,000	—	110, Cannon-st., E.C.
Cumbrlnd (New) G	/9 1/3	/9 1/3	1 0	2/6 Dec. '87	0 19 0	184,890	Queenslnd	Blomfield House.E C
DayDawn B.&W. G	11/6 12/6	12/- 13/-	1 0	-/6 Mar 12 '96	1 0 0	498,400	„	16, S. Helen's Place
„ P. C. G	3/6 4/	3/6 4/-	1 0	-/6 Apr. '92	1 0 0	490,000	„	Winchester Ho..E C
Eaglehawk.........G	1/6 2/6	1/6 2/6	1 0	—	0 18 0	120,000	Victoria ...	71-72, King Wm. St.
Eagle's Nest	par ¼ pm	par ¼ pm	1 0	—	1 0 0	72,500	Mt.Margrt	Finsbury House.
Emperor ....G	½ ¾	¾ ¾	1 0	—	1 0 0	65,000	„	Finsbury House, E.C
Empress Coolge. G	7⁄16 9⁄16	⅜ ⅝	1 0	—	0 10 0	90,000	Coolgardie	2, Tokenhouse bldgs
Explorers Synd. ...	par ¼ pm	par ¼ pm	1 0	—	0 5 0	9,000	W.Austral	Copthall House
Fingall R'fs. Extd	11⁄16 13⁄16	11⁄16 13⁄16	1 0	1/4 Jan. 16 '96	1 0 0	150,000	„	4, Sun Court
Florence..........G	1 11⁄16 1 13⁄16	1⅝ 1¾	1 0	—	1 0 0	60,000	„	13, St. Swithin's ln
Gibraltar Cons......	⅞ 1	⅞ 1	1 0	—	1 0 0	300,000	N S Wales	6, Queen-street-place
Gladiator ....G	¾ 1	⅝ ¾	1 0	—	1 0 0	—	W. Austral	43, Threadneedle st
Glenrock .... G	1/3 1/6	1/3 1/9	1 0	—	0 8 0	225,000	N. Zealand	3-5, Queen-st. E.C.
Golden Cement G	1 5⁄16 1 7⁄16	1⅜ 1¼	1 0	—	0 10 0	—	W.Austral	79, Queen Street, E.C.
„ Crown....G	1⅞ 2	1⅞ 2	1 0	—	1 0 0	100,000	„	77, Bishopsgate-st.
„ Gate....G	/6 1/6	/6 1/6	10/	—	0 10 0	150,000	Queenslnd	34-36, Gresham-st.
„ Horse Shoe...	1 3⁄16 1 5⁄16	¾ 1	1 0	—	1 0 0	—	W.Austral	13, Helen's Place
„ Link ......G	1 1⅛	⅝ ¾	1 0	5/- Oct 30' 95	1 0 0	90,000	„	Dashwood House
„ Plum......G	1¼ 1⅜	1⅜ 1⅛	1 0	—	1 0 0	120,000	„	4, Bishopsgate Street
Gold Estates.......	2⅛ 2⅜	2⅜ 2⅜	1 0	3/ Dec 31 '95	1 0 0	60,000	„	42, Gresham House.
Great Boulder ...G	7 13⁄16 7 15⁄16 xd	7⅜ 7⅝xd	1 0	2/- Mar. 27 '96	1 0 0	240,000	Yilgarn ..	3, Gracechurch st.
„ „ Junction	1⅛ 1⅜	1⅛ 1⅜	—	—	—	—	„	Worc. Ho., Walbrook
„ „ M'n R'fs	13⁄16 15⁄16	1¼ 1⅜	10/	—	0 10 0	240,000	—	3, Princes Street.
„ Fingall Rfs.	1 1⁄16 1 3⁄16	13⁄16 15⁄16	1 0	5% Jan. 16, 96	1 0 0	175,000	Kurnalpi	Broad Street House
Gresham Synd. ..	1 1⅛pm	1 1⅛pm	1 0	4/- Oct 30 '95	1 0 0	50,000	W. Austral	13-14, Abchurch ln.
Hainault	1⅛ 1¾	1⅜ 1¾	—	—	—	—	—	82, Gordon st, Glas.
HamptonGoldFlds	⅜ ⅜	⅜ ⅛ dis	1 0	—	0 10 0	—	—	9, S. Mildred's Ct.
„ GoldHill	/6 1/	-/6 1/-	1 0	—	—	—	—	93-94, Gracechurch st
„ Plains...	4 7⁄16 4 9⁄16	4 7⁄16 4 9⁄16	1 0	—	1 0 0	300,000	Cool. W.A.	29, S. Swithin's lane
„ PlainsEx	8/6 9/6	8/6 9/6	1 0	—	0 18 0	180,000	„	Suffolk House, E.C.
Hannan's BrwnHil	6¾ 7	6⅞ 7⅛	1 0	—	1 0 0	65,000	„	Broad Street House.
„ Main Reef...	½ 9⁄16	½ 9⁄16	10/	—	0 10 0	—	Klg. W.A.	18, St. Swithin's ln.
„ North........	1 1⅛	1 1⅛	1 0	—	1 0 0	51,107	„	33, Cornhill.
„ 100 Acre.......	¾ 1	¾ 1	1 0	—	—	—	„	Dashwood House.
„ Oroya.........	13⁄16 15⁄16	15⁄16 1 7⁄16	1 0	—	1 0 0	—	„	20, Bucklersbury
„ Prop.........	1⅜ 1⅜	1⅜ 1⅜	1 0	—	0 10 0	—	—	139, Cannon Street.
„ Reward... G	3 13⁄16 4 1⁄16	3⅞ 4	1 0	—	1 0 0	70,000	Hann.W A	Bartholomew Ho.
„ Star.........	1 3⁄16 1 5⁄16	1 1⁄16 1 3⁄16	1 0	—	1 0 0	—	E.Coolgde.	Finsbury House E.C
Hauraki......... G	16/ 16/6 xd	16/ 16/6xd	2/6	1/ Mar. 27 '96	0 2 6	250,000	Coromndl.	Dashwood Ho., E.C
Hawk's View	⅜ ⅝	⅜ ⅝	1 0	—	1 0 0	40,000	W. Austral	71 72, King Wm. St.
Hit or Miss	1 1⁄16 1 3⁄16	1⅜ 1⅜	1 0	—	1 0 0	120,000	Cool.,W.A.	1, Queen Vic. St.
Idaho ....GS	5/ 5/6	5/3 5/9	10/	-/6 Jan. 16 '96	0 5 0	143,439	W. Austral	Copthall House.
Kabeonga ....G	1/6 2/	1/6 2/	10/	—	0 9 9	249,250	Queenslnd	70-71, Bishopsgate st
Kalgurli...........	1⅜ 1⅞	1⅜ 1⅞	1 0	—	1 0 0	34,000	W. Austral	10, Threadneedle-st
Kapanga...........G	11/ 11/6	10/6 11/	1 0	rts May 24 '95	0 19 6	249,760	N.Zealand	9, New Broad-street.
Kinsella (New)...G	7/6 8/6	7/6 8/6	1 0	—	0 18 0	80,340	Murchison	33, Broad-st. Avenue
Kintore ....G	⅝ ⅞ pm	⅝ ⅞ pm	1 0	—	0 15 0	44,000	W. Austral	3, Abchurch lane.
Komata Reefs	5/ 5/6	5/ 5/6	5/-	—	0 5 0	—	Ha'raki, NZ	Dashwood House.
Kurnalpi...........G	9/6 10/6	¼ ⅜	1 0	—	—	—	Coolgardie	Throgmorton House
Lady Loch...........	3⅜ 4	3⅞ 4	1 0	—	1 0 0	70,000	„	34-36, Gresham-st.
„ Mary Amalg.	15⁄16 1 1⁄16	15⁄16 1 1⁄16	1 0	—	1 0 0	46,000	Murchison	Finsbury House.
„ Shenton	2 7⁄16 2 9⁄16	2 7⁄16 2 9⁄16	1 0	—	1 0 0	—	—	18, St. Swithin's ln
LakeView & E.Bldr	4 5⁄16 4 7⁄16	4 4¼	10/	-/6 Jan. 2 '95	0 7 6	—	—	9, Cannon Street.
Limerick	1⅜ 1¾	1⅜ 1¾	1 0	—	1 0 0	52,537	Coolgardie	Leadenhal Buildgs.
Ln. & Con. Invest.	⅛ ¼ pm	⅛ ¼ pm	1 0	—	1 0 0	500,000	W. Austral	73, Queen Street.
Lon. & Globe Fin.	2⅜ 2⅝xr	2⅜ 2⅝ xr	1 0	rts Mar. 27 '96	0 15 0	—	„	15, Austin Friars.
Londonderry......G	7/ 8/	7/ 8/	1 0	—	1 0 0	467,000	„	3, Gracechurch-st.
L.& W. Aust. Expl.	2 1⁄16 2 3⁄16	2 1⁄16 2 3⁄16	1 0	4/-Nov 29 '94	1 0 0	270,100	„	Broad Street Ho.
Lon. W. A. Invest.	2⅜ 2⅞	2⅜ 2⅝	1 0	4/ Oct 16 '95	1 0 0	100,000	„	„
Mainland Cons. G	2⅞ 3	2⅞ 3	1 0	—	1 0 0	150,000	Murchison	24 Old Broad Street
Mawson & Rewrd. G	⅜ ¾	½ ⅝	1 0	—	1 0 0	60,800	„	28 & 29, S Swithin's ln
Menzies Gold Est.	1 1⅛	1 1⁄16 1 3⁄16	1 0	—	1 0 0	—	„	Broad Street House
„ Gold Reef	1 13⁄16 1 15⁄16	1⅞ 1⅞	1 0	—	1 0 0	175,000	„	22a, Old Broad Stree
„ (O'Driscoll)	1 5⁄16 1 7⁄16	1 5⁄16 1 7⁄16	1 0	—	1 0 0	—	„	16, Tokenhouse Yard
Mills' Day Dawn G	13⁄16 15⁄16	13⁄16 15⁄16	1 0	-/6 Aug 29 '95	0 15 6	300,000	Queenslnd	16, S. Helen's Place
Mosman ....G	3/6 4/6	4/3 4/9	1 0	—	0 19 0	185,000	N.S. Wales	Bishopsgate House
Mount Lyell.........	5¾ 6	5¾ 6	3 0	—	3 0 0	300,000	Tasmania	Finsbury House
Mount Margaret...	2⅜ 2⅛	2⅛ 2⅛	1 0	—	1 0 0	—	W. Austral	28, St. Swithin's ln.
„ Morgan G	3 9⁄16 3 11⁄16	3⅝ 3⅞	1 0	-/6 Mar 12, '96	0 17 6	1,000,000	Queenslnd	9, Gracechurch-st.
„ Rowe	1¼ 1⅜	1 3⁄16 1 5⁄16	1 0	—	1 0 0	75,000	Coolgardie	44, Coleman Street
MurchisonN.Ch'm	9/ 10/	10/6 11/6	1 0	1/- Oct 30 '95	1 0 0	160,000	„	23, College Hill.
N'wHauraki Props	5/9 6/3	5/9 6/3	5/	—	0 5 0	230,000	Ha raki, NZ	Dashwood House.
„ Queen ......G	6/6 7/6	6/6 7/6	1 0	-/6 Sep 12 '95	0 13 6	158,915	Queenslnd	71 72, King Wm. St.
Norseman	1⅜ 1⅝	1⅜ 1¾	1 0	—	1 0 0	200,000	Dundas ..	3, S. Swithin's lane
North Boulder.....	6/6 7/6	6/ 6/6	10/-	—	0 10 0	—	W. Austral	15, Helen's Place
„ Coolgardie ...	1/ 1/6	1/ 1/6	5/	—	0 4 0	400,000	Pilbarra ...	225, Winchester Ho.
„ Kalgurli	1 1⅜	¾ 1	1 0	—	1 0 0	—	—	11, Abchurch lane
„ Q'ld. Agency	1⅜ 1⅜	1⅛ 1¼	1 0	30% Aug. '95	1 0 0	90,000	Queenslnd	10 New Broad Street
Omnium G M Assoc	¾ 1	¾ 1	1 0	—	1 0 0	80,000	—	Broad-street House
Paddington Cons.	1 5⁄16 1 7⁄16	1¼ 1⅜	1 0	—	1 0 0	75,000	W. Feather	77, Bishopsgate-st.
Pambula	—	—	1 0	—	1 0 0	70,000	N S Wales.	Winchester House.
Pilbarra G. F.	13⁄16 15⁄16	1 1⁄16 1 3⁄16	1 0	—	1 0 0	100,000	Pilb, W. A	38, Coleman-street.
Ramage Syndicate	4⅜ 4⅛	4¼ 4⅛	1 0	£2 & rts F.13 96	1 0 0	50,000	W. Austra.	4, Bishopsgate-st.
Royal Oak	2/3 2/9	2/9 3/3	5/	—	0 3 0	200,000	N. Zealand	Dashwood House.
„ Sovereign ...	1¼ 1⅜	1¼ 1⅜	1 0	—	1 0 0	60,000	Coolgardie	8, Old Jewry, E.C.
Sharlaws	11/6 12/6	11/ 12/	1 0	—	1 0 0	85,000	„	Broad Street Avenue
Scottish Australian	⅜ ⅝	⅜ ⅝	1 0	-/3 Aug., '95	1 10 0	200,000	N. S. Wale	Winchester Ho. E.C.
Scotty's Hauraki...	3/6 4/	3/6 4/	5/-	—	0 2 0	400,000	N. Zealand	5, Drapers gardens
South Kalgurli ..	⅝ ⅞	⅝ ⅞	1 0	—	1 0 0	60,000	W. Austral	2, Great Win. St.
Stray Shot & Excl	⅞ 1⅛	⅞ 1⅛	1 0	—	1 10 0	—	Pilb., W A	20, S. Swithin's lane.
Tavaru.............	4/ 5/	4/ 5/	10/	—	0 5 0	90,000	N-Zealand	Dashwood House.
Tokatea of Hauraki	2/ 2/6	2/ 2/6	5/	—	0 3 0	—	„	63, New Broad St.
Town Prop. of W A	1⅛ 1¼	1 3⁄16 1 5⁄16	1 0	—	0 15 0	250,000	W. Austral	28-9, S. Swithin's ln
True Blue	1⅜ 1⅝	1 7⁄16 1 9⁄16	1 0	—	1 0 0	—	„	Dashwood House.
Victoria Associatn	—	—	1 0	-/3 Feb. '96	1 0 0	144,000	Chr. Tow.	6, Crosby-square
Victory........... G	3⁄16 5⁄16	3⁄16 5⁄16	5/	-/3 May, '94	0 5 0	40,000	Queenslnd	34, Gresham-st., E.C
Waihi............. G	6 6¼	6 6¼	5/	2/- Mar 12, '96	1 0 0	181,000	N. Zealand	11, Abchurch-ln. E.C
„ Silverton	3⅞ 4	3⅜ 3⅞	1 0	—	1 0 0	60,000	„	23, College Hill
Waitekauri	4⅜ 4⅝	4⅜ 4⅝	1 0	—	1 0 0	136,000	„	„
„ Extended ...	7⁄16 ⅝	7⁄16 ⅝	10/	—	0 10 0	130,000	„	63, New Broad St.
Waratah........... G	9/6 10/6	8/6 9/6	10/	—	0 10 0	100,000	Crydn, N Z	43, Threadneedle st
Water Trust Min.	⅝ ⅞	⅜ ⅝	1 0	—	1 0 0	120,000	W. Austral	Broad Street House
W. of Nations.......	1 5⁄16 1 7⁄16	1¼ 1⅜	1 0	—	0 15 0	—	—	77, Bishopsgate-st.
Wentworth ....G	1⅛ 1¼	1⅛ 1¼	1 0	2/- Dec 16 '95	1 0 0	500,000	N. S Wales	4-6, Throgmort. Av.
W. A. Develop's.	1⅛ 1¼	1 1⁄16 1 3⁄16	1 0	—	1 0 0	50,000	—	49-53, Moorgate court.
W.Aust. G.Conces	1¾ 1⅞	1 13⁄16 1 15⁄16	1 0	2/ Sept. 27 '95	1 0 0	£55,000	W. Austral	33, Old Broad st., EC.
W. A. Ex. & Fin.	3⅛ 3¼xr	3⅛ 3¼ xr	1 0	rts Mar. 27 '96	1 0 0	200,000	„	54, „

AUSTRALIAN AND NEW ZEALAND MINES—(*Continued*).

Name	Closing Price, Apr. 10, 1896	Closing Price. Apr. 1, 1896.	Am't. of Share	When last XD and Dividend	Called up Per Share.	Amount of Stock or No. of Shares Issued.	Situation of Mine.	Head Office
W. A. General......	3⅛ 3⅜	3⅜ 3⅞	1 0	—	0 14 0	—	W. Austral	28, St. Swithin's-ln.
„ Australian G.F.	7¼ 8	7⅜ 7⅞	1 0	rts Mar 12 '96	1 0 0	65,000	Coolgardie	28-29, „
„ „ Mines Dvl	1¾ 2¼pm	1¾ 2¼ pm	1 0	10/ Oct 30, 95	1 0 0	40,000	W. Austral	3, Princes Street
„ Aust. Mining	9/9 10/3xd	9/9 10/3xd	5/	7½d.Mar.27'96	0 5 0	320,000	„	257, Winchester Ho.
„ Aust. Pioneer.	1¾ 1⅞	1⅝ 1⅞pm	1 0	rts Oct 19 95	0 15 0	19,993	„	139, Cannon-street.
„ „ Share Corp.	⅝ ¾pm	⅝ ¾ pm	1 0	—	0 5 0	200,000	„	28, St. Swithin's ln
„ „ Venture......	2⅝ 2⅞pm	2⅝ 2⅞ pm	1 0	15/ Oct. 30 '95	1 0 0	—	„	3, Princes Street.
West Boulder	15⁄16 1 1⁄16	13⁄16 15⁄16	—	—	—	—	—	
White Feather ...	2⅜ 2⅝	2⅜ 2⅝	1 0	—	1 0 0	60,000	Coolgardie	28 & 29, S. Swithin's ln
Zapopan...........G	4/ 5/	5/ 5/6	1 0	—	1 0 0	25,000	N W Austra	70, Bishopsgate-street
Zeehan Montana S	—	—	1 0	-/4 Dec. 95	1 0 0	66,000	Tasman a	11, Queen Victoria st
„ „ ...	—	—	1 0	2⅛ Dec. 95	0 2 6	12,000	„	„

NORTH AMERICAN MINES.

Name	Closing Price, Apr. 10, 1896	Closing Price, Apr. 1, 1896	Am't. of Share	When last XD and Dividend	Called up Per Share	Amount of Stock or No. of Shares Issued	Situation of Mine	Head Office
Alaska Mexican...G	1⅛ 1¾	1⅝ 1⅞	$5	4 4-5d. Feb.,96	$5	160,000	Alaska......	30, St. Swithin's-ln
„ Treadwell G	5¾ 5¾	5 5½	$25	1/6 Dec 24, '95	$25	200,000		
Anglo Mexican ...S	¼ ⅛	⅜ ⅝	5 0	1/- Apr. 15 96	5 0 0	74,850	„	23, College Hill;
Arizona (Pref.) Cu	48/ 48/3	45/9 46/-	4 0	1/6 Feb. 13,'96	4 0 0	158,920	Arizona ...	74, Geo.-st., Edinbor
„ 6½ A Deben.	108¾	108	100 0	½% Oct.30 '95	100 0 0	£135,300	„	„
„ 7% B Deben.	96½	96½	100 0	7% Oct. 30 '95	100 0 0	£181,300	„	
De Lamar.........GS	16/6 17/6	15/6 16/6	1 0	1/- Feb. 13 '96	1 0 0	400,000	Idaho......	6, Drapers-gardens.
Dickens Custer GS	-/9 1/3	-/9 1/3	1 0	—	0 19 9	420,000	„	Winchester Ho. E.C.
Doric.................G	7/9 8/3	7/9 8/3	5/	—	0 5 0	125,000	Colorado...	
Elkhorn Priority S	⅛dis ⅛ pm,	⅛dis ⅛pm	1 0	-/3 June 26 '95	0 10 0	175,007	Montana	6, Draper's-gardens.
Gen. M'g. Assoc. ...	6¾ 7¼	6¾ 7¼	5 10	14/- Apr. 95	5 10 0	27,469	C. Breton	Blomfield House.
Golden Feather G	11/- 12/-	12/ 13/	1 0	—	1 0 0	180,000	California	5, Stephens Cs E.C.
„ Gate ......G	3/- 4/-	2/9 3/6	1 0	—	0 19 6	79,600	„	„
„ Leaf...... G	1/- 1/6	1/ 1/6	1 0	—	1 0 0	300,259	Montana	8, Draper's Gardens.
Harquahala... .. G	3/6 4/6	3/6 4/6	1 0	-/6 Nov.14,'94	1 0 0	300,000	Arizona ..	6, Draper's Gardens.
Holcomb Valley G	1/- 1/6	1/ 1/6	5/	—	0 5 0	540,000	California	14, Cornhill. E.C.
Jackson Goldfields	/6 1/-	/6 1/-	5 0	—	0 5 0	408,635	„	11, Poultry, E.C.
La Plata............S	1/ 1/3	1/ 1/3	5/	1/3 Oct. '82	0 4 6	405,000	Colorado	11, Poultry, E.C.
La Yesca ....GS	3/- 4/-	2/9 3/3	1 0	—	0 19 6	200,000	Mexico ...	20, Bucklersbury, EC
Lyonnaise Mexican	⅞ 1⅛	⅞ 1⅛	1 0	—	1 0 0	140,000	„	3, Broad St. Bldgs.
Montana .... GS	8/6 9/6xd	8/6 9/6 xd	1 0	-/3 Mar 27 '96	0 19 0	657,158	Montana	Gresham House, E.C.
New Guston ......S	⅛ ⅜	⅛ ⅜	1 0	1/- Oct. '92	1 0 0	110,000	Colorado	25A, Old Broad-st.
Palmarejo ......GS	1/9 2/3	1/9 2/3	1 0	—	1 0 0	418,888	Mexico ...	32, Old Jewry, E.C.
PinosAltos(Df)GS	⅛ 3⁄16	⅛ 3⁄16	1 0	-/6 Mar.' 90	1 0 0	100,000	„	110, Cannon-street.
Richmond ...GSL	⅝ ⅞	⅝ ⅞	5 0	1/- Dec. 16 '95	5 0 0	54,000	Nevada ...	44, Coleman-street.
St. George............	1/ 2/	1/ 2/	5/	—	0 4 9	—	G'o'gia USA	S. Geo Ho., E'cheap
Sierra Buttes ...G	7⁄16 9⁄16	7⁄16 9⁄16	2 0	-/6 Oct. 30 '95	2 0 0	122,500	California	133, Leadenhall-st.
„ Plumas Eur. G	11⁄16 13⁄16	11⁄16 13⁄16	2 0	-/9 Oct. 30 '95	2 0 0	140,265	„	„
Springdale.........G	/10½ 1/1½	/10½ 1/1½	$1	-/2 Sep. 28, 9	$1	1,000,000	Colorado	20, Abchurch Lane.
Twin Lake Placers	1 1¼	1 1½	1 0	3/- Feb. '95	1 0 0	26,000	„	5, Lawrence P. Hl. E

SOUTH AND CENTRAL AMERICAN MINES.

Name	Closing Price, Apr. 10, 1896	Closing Price, Apr. 1, 1896	Am't. of Share	When last XD and Dividend	Called up Per Share	Amount of Stock or No. of Shares Issued	Situation of Mine	Head Office
Anglo-Chilian Pf. N	9½ 10	9½ 10	10 0	7/0 Feb. 27 '96	10 0 0	35,000	Antofagst.	123, Bishops.-st. W
„ 6% Rylst MB	108 110	108 110	100 0	6% Jan. 2 '96	100 0 0	£200,000	„	
Argen.Concessions	1/9 2/3	1/9 2/3	2/	—	0 2 0	150,000	S. Luis ...	3 & 5, Queen Street.
Caratal........... G	/6 1/	-/6 1/	2/6	—	0 2 6	1,330,000	Venezuela	57, Moorgate-st. E.C
Caylloma............S	—	—	2 0	1/- Apr. 94	2 0 0	125,000	Peru	62, Leadenhall street
Colon ....G	-/3 /9	-/3 /9	5/	—	0 4 0	200,000	Colombia	5, Copthall-bdgs., E.C
Colorado Nit. ...N	1¾ 2¼	1¾ 2¼	5 0	2/6 Dec.16,'95	5 0 0	32,000	Chili	12, King-st., Liverp'l
Colombia...... ....G	—	—	20 0	10 frs. Aug. 94	20 0 0	—	Venezuela	Ciudad Bolivar.
Colombian Hy....G	7⁄16 9⁄16	7⁄16 9⁄16	1 0	1/- Jy 26, '95	1 0 0	75,600	Colombia	10, Blomfield-street
Copiapo C	2 2¼	2 2¼	2 0	2/6 Dec. 16 '95	2 0 0	100,000	Chili	Dashwood House, E.C
Darien "A" ......G	5⅞ 6	6⅜ 6⅝	1 0	—	1 0 0	49,553	Colombia	Manchester.
„ "B".........	7⅜ 8	9⅜ 9⅞	1 0	x.nw Dec 30'95	1 0 0	30,000	„	
Don Pedro.........G	1/ 2/	1/ 2/	1 0	—	1 0 0	133,102	Brazil	24-5, Devonsh.CsE.C
El Callao ....G	⅛ ⅜	⅛ ⅜	5 0	9½d. Feb. '94	5 0 0	257,600	Venezuela	8, Bishopsgt.-st., W'r.
Frontino & B.....G	1 1⁄16 1 3⁄16	1 1⁄16 1 3⁄16	1 0	6d. Jan. 18 '9	1 0 0	128,662	Colombia	184, Gresham House.
Glenrock ....G	1/3 1/9	1/3 1/9	1 0	—	1 0 0	199,948	Arg. (& I.)	3-5, Queen-street, E.C
Gravel ....G	2/6 3/6	2/6 3/6	1 0	—	1 0 0	100,000	Colombia	10, Blomfield-street
Guadalupe .....GS	3/6 5/-	3/6 5/	1 0	—	1 0 0	120,000	Honduras	14, Union ct. Old Brd
Julia Taltal ....N	⅛ ¼	⅛ ¼	1 0	—	1 0 0	105,234	Nicaragua	139, Cannon-street.
Lagunas ....N	3¼ 3½	3¼ 3½	5 0	15p.c. Dec. '94	5 0 0	120,000	Tarapaca	3, Gracechurch st.
Lautaro ....N	6¾ 6¾	6¾ 6¾	5 0	5/- Dec. 30 '95	5 0 0	110,000	Chili	70, „
Liverpool ....N	9½ 10½	8½ 9½	5 0	15/- Dec 16, 95	5 0 0	22,000	„	Liverpool.
Loma ....G	-/6 1/-	/6 1/	1 0	—	1 0 0	300,000	Colombia	5, Copthall-building.
London Nit.......N	1¾ 2¼	1¾ 2¼	3 0	3/4¾ Nov. '95	5 0 0	10,000	Chili	9, Gracechurch-st.
„ Nit.(Pref.)	3⅜ 4½	3½ 4½	5 0	3% Nov. 28 '95	5 0 0	22,000	„	„
Macate	1/ 1/6	1/- 1/6	2/	—	0 2 0	200,000	Peru	11, Old Broad-st. E.C
New Tamarugal N	⅛ ¼	⅛ ¼	1 10	1s. Dec. '94	1 10 0	130,000	Tarapaca	50, Lime-street, E.C
„ 8% Cum Pref	7⁄16 9⁄16	7⁄16 9⁄16	1 10	8 p.c. Feb. '95	1 10 0	130,000	„	„
„ 6 p.c. Debs ...	86 90	86 90	100 0	6 p.c. Feb. '96	100 0 0	£260,000	„	„
Orita ....G	1/9 2/3	1/9 2/3	1 0	1/- April '89	1 0 0	30,000	Colombia	10, Blomfield-street
Ouro Preto ... . G	—	—	1 0	1/- Feb. '96	1 0 0	80,000	Brazil	6, Queen-street-place
Bac. & Jazpampa N	1¾ 2	1¾ 2	5 0	4/- May, '95	5 0 0	72,000	Tarapaca	3, Gracechurch-st.
Phœnix	-/9 1/-	/9 1/-	10/-	—	0 8 0	400,000	S. Luis ...	3 & 5, Queen Street.
Quebrada C	1⁄16 3⁄16	⅛ ¼	3 0	5% Mar. '92	3 0 0	241,956	Venezuela	38, Nicholas Lane.
Rosario ....N	5 5¼	5 5½	5 0	5/- Feb. 13 '96	5 0 0	120,000	Chili	57½, Old Broad-stree
„ (5% Deb.)	102 104xd	102 104 xd	100 0	5% Apr. 1 '96	100 0 0	£475,000	„	„
„ Hu'r'Db Serp	103 106	103 106	100 0	5% Jan. 2 '96	100 0 0	£200,000	„	„
St. John del Rey G	19/6 20/6	⅞ 1	1 0	x.rts Nov 19 '95	1 0 0	327,650	Brazil	Finsby.Ho., Blmf'd st
San Donato ... ..N	1¼ 1¾	1½ 1¾	5 0	2/6 May 24 '95	5 0 0	32,000	Chili	12, King-st., Liverp
„ Jorge ....N	5⅛ 6	5½ 6	0	5/ Oct. 16 '95	5 0 0	75,000	„	9, Gracechurch-st.
„ Pablo ....N	2 2⅛	2 2⅛	0	5/ Oct. 30 '95	5 0 0	32,000	„	
„ Sebastian ...N	1⅛ 1¾	1½ 1¾	5 0	5/ May 24 '95	5 0 0	29,000	„	Dashwood House EC
Santa Barbara ...G	—	—	10/	1/3 Dec. '86	0 10 0	60,000	Brazil......	Liverpool
„ Elena ....N	⅛ ¾	⅛ ¾	5 0	5/- Nov. 15 '94	5 0 0	22,000	Tarapaca	3, Gracechurch-st.
„ Rita ....N	3⅛ 4	3½ 4⅛	5 0	10/ May 24 '95	5 0 0	20,000	Chili ...	Dashwood House, E.C
Segovia ....G	—	—	5/-	—	0 5 0	120,000	Colombia	5, Copthall-buildings
Colima "A" ......S	6¾ 7¼	7 7½	5 0	5/-Mar. 12 '96	5 0 0	14,000	„	18, Finsbury-circus.
„ "B" ......S	5⅛ 6½	5½ 6½	5 0	5/- Mar 12 '96	5 0 0	6,000	„	„

INDIAN AND ASIATIC MINES.

Name	Closing Price, Apr. 10, 1896	Closing Price, Apr. 1, 1896	Am't. of Share	When last XD and Dividend	Called up Per Share	Amount of Stock or No. of Shares Issued	Situation of Mine	Head Office
Balaghat Mysore G	2/9 3/3	2/9 3/3	1 0	—	0 19 0	159,945	India	6-7, Queen-street-p
Burma Ruby......R	11⁄16 13⁄16	⅝ ¾	1 0	—	0 18 0	298,561	Burmah...	Suffolk House. E C.
Champion Reef...G	6 13⁄16 7 1⁄16	6⅝ 6¾	1 0	5/- Jan. 16 '96	1 0 0	220,000	India	6-7, Queen-street-pl.
Ooiar Central ...G	1/- 1/6	1/ 1/6	1 0	—	1 0 0	200,000	„	Dashwood Ho., E.C.
Coromandel...... G	1⅛ 1¼	1⅛ 1¼	1 0	—	0 17 6	95,000	„	6-7, Queen-st.-place
GoldFldsMysore G	20/6 21/6	1 1 1⁄16	1 0	2/- Feb '96	1 0 0	275,000	„	6-7, Queen-street pl.
Kadur Mysore......	4/ 5/	4 5	5/	—	0 5 0	400,000	„	Copthall House, E.C
Kempinkote GdFd	/6 1/	/6 1/	5/	—	0 3 6	750,000	India	6-7, Queen-st.-place.
Mysore .... G	5 11⁄16 5 13⁄16	5⅜ 5⅛	1 0	4/6 Mar. 12 '96	1 0 0	248,354	„	6-7, Queen-street pl.
My. Harnhalli ...G	-/9 1/3	/9 1/3	1 0	—	0 18 0	100,007	„	4, East India Avenue
„ Reefs ...G	9/6 10/6	7/6 8/6	1 0	—	1 0 0	100,000	„	6-7, Queen-street-pl.
„ West(N)G	1 1⁄16 1 3⁄16	1⅛ 1¼	1 0	rts. Jan. 16 '95	0 19 0	127,402	„	2, Gt. Winchester St.
„ Wynaad G	1⅛ 1¼	1 1⁄16 1 3⁄16	1 0	rts. Jan. 16 '96	0 19 0	125,000	„	„
Nine Reefs ......G	2/9 3/3	2/6 3/-	10/	—	0 10 0	250,000	„	6-7, Queen-street-pl.
Nundydroog......G	2 11⁄16 2 13⁄16	2 9⁄16 2 11⁄16	1 0	2/- Mar 12 '96	1 0 0	200,000	„	„
Ooregum (Df.O.)G	3 3⅛	2 13⁄16 2 15⁄16	1 0	3/- Dec. 15 '95	1 0 0	145,000	„	„
„ (10% Pref.).	3⅞ 4⅛	3 13⁄16 3 15⁄16	1 0	3/- Dec. 16 '95	1 0 0	97,011	„	„
„ (10% Pref.).	3⅛ 3⅜	3 3⅛	1 0	3/- Dec. 16 '95	0 5 0	12,989	„	„
Pahang Kabang T	1⁄16 3⁄16	1⁄16 3⁄16	1 0	—	1 0 0	260,000	Malay Pn	4a, Jeffrey's st. E.C
Yerrakonda ......G	/9 1/3	/9 1/3	4/	—	1 2 6	157,491	Mysore ...	6-7, Queen-street pl

REPORTS FROM THE MINES.

BRITISH MINES.

FOXDALE (Isle of Man).—April 2: Beckwith's engine shaft. The sinking of this shaft is carried on in its usual course, there being no particular change in the character of the ground, which is hard granite interspersed with quartz and chalybite.—275 fathom level west. During the past month there has been a falling off in the value of the lode in this driving. I am, however, pleased to report it is again showing signs of improvement, and, at present, is producing about 30 cwts. of lead ore per fathom. To prove the portion of the lode standing on the north side of this level a crosscut has been put out and has reached what appears to be comparatively clean country, rock, but nothing of value was met with. There is no change calling for remark in the end driving in this direction on north lode, and in the east end on main lode, both of which are yielding small quantities of ore.—260 fathom level. The improvement referred to in last report in the end driving west, on the south lode, has been maintained, and is yielding 30 cwts. of lead ore per fathom. Judging from present appearances we expect it will prove to be the same run of ore ground driven through in the level above, it having dipped further west than anticipated. In the level driving west on the north lode the men are at present engaged crosscutting to prove the full width of the lode, which recently has considerably fallen off in value. So far nothing of importance has been discovered in the crosscut north immediately behind the east end, and, unless indications more favourable are met with, we shall in a few days resume driving the forebreast.—Potts' shaft. Having been communicated with the rise, every effort will be made to square down, and complete the sinking of the shaft to the 200 fathom level as quickly as possible.—115 fathom level. The end driving west is opening out a profitable section of ground for stoping, the lode being worth 2 tons of rich silver-lead ore per fathom.

WEST KITTY.—St. Agnes, Scorrier, Cornwall, April 9: The rise in back of the 84 fathom level west of Reynolds' shaft is worth £8 per fathom. The 72 fathom level driving west of Reynolds' shaft the lode is about 2 feet wide, yielding a little tin, but not to value. Tee 60 fathom level driving west of Reynolds' shaft the lode is 3 feet wide, and worth £9 per fathom. The rise in back of this level is worth £11 per fathom. The 60 fathom level driving east of Thomas's shaft is worth £9 per fathom. The stopes and tribute pitches continue to yield the usual quantity of tin. The shaftmen at Thomas's have fixed a drawing lift, and are now engaged in cutting plat at the 60 fathom level,—(Signed) Joel Hooper, John Williams.

BROWNHILL PROPRIETARY.—Under date of February 17 Captain Vawdrey writes: On Wednesday I took Mr. Hocking out to the mine. Mr. Hocking owns the Hannan's *Miner* newspaper, and does all the mining reporting for the same. I took him all through the works, and am now enclosing his report on the same. He informs me he has been down in almost all the mines in Hannan's, but has not seen anything north of the Hannan's Brownhill looking better than leases 922 and 552.

EMERALD REWARD.—Yalgoo, February 25: Report No. 1. I beg to forward you the weekly report of the different exploration points.—Point No. 1, shaft No. 1 (late tribute department) The two men working at this point have just intersected another vein of good quartz about 8 inches wide, bearing about east and west and underlaying north. This is a most remarkable occurrence as the direction and underlay of the previous veins have been in an almost directly opposite direction with regard to their bearing and underlay. This vein as well as other veins passed through is situated in very congenial and soft diorite, and is producing some very rich specimens of gold, four stones of which are now before me on the table which I have just brought up from underground. I hope this remark will not unduly raise your expectations as these little veins have as often proved disappointing. But if this should continue it will brighten up the future of the mine, although only 8 inches wide. The men have driven 20 feet for the past fortnight.—Consolidated shaft No. 3. This crosscut is still progressing satisfactorily with two men. They have driven for the present month 21 feet, and have another 25 feet to drive before they reach the point at which I intend sinking the new shaft. —Point No. 3, shaft No. 1. I am very pleased to report that these four men have been doing good work, having driven on the lode bearing north and south 25 feet, and 16 feet 4 inches on east and west lode, with which it has formed a junction, being a total drivage of 41 feet 4 inches. The lode in the west end is about 3 feet wide, and the quartz has got a kindly appearance, producing occasionally colours of gold. The east end of the lode is 4 inches wide, and improved a little last week, producing some very capital stones of free gold. I am having the output of this end sampled every two days to see if it will pay for milling.—El Dorado Consolidated, Shamrock No. 1 shaft. The four men working at this point have driven for the month 29 feet, and the lode for this distance has only averaged about from 4 inches to 6 inches wide, which I estimate will go about ½ ounce per ton. The output of quartz from both ends has been so limited that I have not yet a sufficient quantity to enable me to make a proper mill test. Two of the above named men I have had blasting the outcrop of the El Dorado lode, from which I have observed from the foot and hanging wall sides of the lode some moderate stones carrying gold. These men have now raised about 10 tons.—Shamrock No. 2 shaft. The two men working here have driven since the 3rd inst 18 feet. The lode in the west end is now about 1 foot wide, and in the east 18 inches wide, and looks promising but poor.—(Signed) James Penberthy, manager.

GEM OF CUE.—Extract from a letter from Mr. F. W. Timperley dated March 1: Depth has proved the Gem of Cue to be one of the soundest properties about here. I have been out very recently, and was very agreeably surprised at the amount of work, and the systematic way in which it has been done, also at the strong and well-defined nature of the lode. They have been raising some wonderfully good stone lately at the 108 feet, gold showing very freely to the naked eye, and the reef is a nice size. Altogether prospects look very bright.

GOLD FIELDS OF TIERRA DEI FUEGO.—Report of the company's manager in Mozambique for the month ending Jan. 31: I have pegged off and properly beaconed 20 alluvial claims on the Manene River. The water is too high at the moment to prospect them properly and get down to bed rock, but the pans give excellent results, showing gold at a depth of 18 inches, and the situation is exceptionally favourable. With a little work I discovered a big reef in the proper bank of the river, which lies within the boundaries of our 20 claims. My intention is to explore on the line of the reef and sink upon it, to ascertain what it is worth at depth. The outcrop is about 4 feet wide. These claims are at the foot of the Birthday Mountain, below the Lucinda, Skyblue, and Lion reefs, one or other of which will require to come to some arrangement with us before they can work properly. I consider a block of 20 claims constitutes a suitable property and convenient in size for all purposes of development, but if the reefs I am now sending to prospect in the Chua Valley are what I expect, I shall peg off all the ground I can lay hands on. By next mail I shall send you licence and plan of the 20 claims already secured.—Revue River. Nobody has yet worked this alluvial. The African Alluvial Company is working Zambesi to its junction with the Revue. Nearly all the claims are pegged off, but I know of a very good spot which nobody has yet pegged, and shall take the first opportunity to beacon off a lot of claims.—Inhamcarara. This district is, in my opinion, richer in gold than Manica or Marbann. When the rainy season is over, my first visit will be to Inhamcarara, where I have a contract for 22 claims just below the rich Eastern claims.

GEORGE GOCH AMALGAMATED.—No. 1 section (George Goch Company's Works).—Report for the month of February:—Mine. Number of feet driven, sunk, and risen, 746 feet; quartz mined, 7493 tons; less waste rock discarded, 2962 tons; quartz mined and milled, 6536 tons; quartz developed in excess of that mined, 5389 tons.—Mill. Number of days working (60 stamps), 27 days; number of tons crushed, 6536 tons; yield in smelted gold, 1633 ounces 10 dwts.; yield per ton, 5·00 dwts.—Cyanide works. Number of tailings treated, 4350 tons; yield in smelted gold, 1063 ounces 9 dwts.; yield per ton, 4·89 dwts.—Working expenditure. To mining (including maintenance), £3618 19s. 2d.; to milling (including maintenance), £1201 11s. 5d.; general charges, £522 9s. 3d.; mine development redemption, £1634; cyanide working, £962 15s.; profit for month, £1245 17s. 8d.; total, £9185 12s. 6d.—Revenue. By gold accounts: 1633 ounces 10 dwts. from 60 stamp mill at 73s. per ounce, £5962 5s. 6d.; 1063 ounces 9 dwts. from cyanide works at 60s. per ounce, £3190 7s.; by sundry revenue, £33; total, £9185 12s. 6d.—Working cost. Mining (including maintenance), 11s. 0·88d. per ton; milling (including maintenance), 3s. 8·12d. per ton; general charges, 1s. 7·18d. per ton; mine development redemption, 5s. per ton; total, £1 1s. 4·18d. per ton; value of yield, 18s. 2·93d. per ton; balance, 3s. 1·25d. per ton. Cyanide working (including maintenance), 4s. 5·11d. per ton; value of yield, 14s. 8·01d. per ton; balance, 10s. 2·90d. per ton.—Expenditure of capital account. Mine development, £3449 11s. 4d.; less redemption, £1634—£1815 11s. 4d.; machinery and plant, £1390 6s. 3d.; permanent works, £3639 18s. 4d.; buildings, £405 10s. 3d.; live stock, £18; reservoirs and dams, £617 1s.—£7886 7s. 2d.—No. 2 section (Metropolitan Company's works).—Cyanide works. Number of tons of tailings treated, 2145 tons; yield in smelted gold, 386 ounces 6 dwts.; yield per ton, 3·60 dwts.—Working expenditure. To cyanide working, £700 7s.; to profit for month, £458 11s.; total, £1158 18s.—Revenue, by gold account. By 386 ounces 6 dwts. at 60s. per ounce, £1158 18s.; total, £1158 18s.—Working cost. Cyanide working (including maintenance), 6s. 6·36d. per ton; value of yield, 10s. 9 66d. per ton; balance, 4s. 3·30d. The general manager in his usual monthly report states that the supply of native labour has been augmented so such an extent that he hopes to be able to commence milling at the No. 2 section by March 16. It must be noted that far more ore has been broken during the last two months than was necessary for the requirements of No. 1 battery, but the whole cost of this mining, which constitutes a considerable reserve, has been charged to current expenses, thereby apparently reducing the profit.

HAMPTON PLAINS EXPLORATION.—The following is the weekly report of work done on Block 59, dated February 29: No. 1 shaft has been sunk 15 feet, making total depth of shaft from surface 70 feet. The stone, which pinched to about 6 inches at a depth of 55 feet, has made again. On the bottom of shaft the reef is now 2 feet wide. From 40 feet deep to present depth the quality of the stone has not been so good. From the surface to a depth of 40 feet the stone showed fine gold freely. No. 2 shaft has been sunk 18 feet, making total depth of shaft 47 feet. Leaders are now making in at the bottom, so that we may expect to cut the lode early next week. During the week I have had two men prospecting near the western boundary of property.

HANNAN'S REWARD.—Extract from the manager's letter, dated February 29:—The following is the work done for the week:—210 feet level crosscut west has been extended a distance of 6 feet 6 inches, total 6 feet 6 inches. 210 feet level crosscut east has been extended a distance of 5 feet, total 5 feet. The quartz vein at this level is still carrying gold to the value of 4 ounces per ton. It will take another week's work in the crosscuts before it will be safe to put in the cage runners. The ground still keeps very hard.

LA YESCA.—The following cable has been received:—"Crushed 48 tons; 1300 ounces; 65 per cent." The manager reports that the depth of the mine to lowest level is 128 feet. This level and winze leading to it are on middle vein of lode. In the forebreast is a body of ore 3 feet wide, with distinct walls crossing lode nearly at right angles. It assays 92, 136, and 150 ounces to the ton. Length of this level is 60 feet. At southerly end he is crosscutting to footwall. In crosscut another body of very fine looking ore has been struck. Progreso winze has a perpendicular depth of 36 feet, and is producing 40 to 60 ounce ore. He also reports that he has about 3 tons of concentrates which will assay 300 ounces and upwards.

LUCKY GUSS.—A letter from the manager, dated March 27, informs the board that at the 300 feet level of the Orpha May, and coming towards the Lucky Guss, the ore is running 100 ounces gold to the ton. This is the same chute of ore as in the 170 feet level which has been driven up to the Lucky Guss boundary. They have also struck good ore in the Pike's Peak Mine, and this lode runs through the Lucky Guss.

MYALL'S UNITED.—Extract from letter of Danvers Power, the company's consulting engineer, dated Sydney, February 21:—Speaking of the shaft, he says:—This is by far the best shaft in the district for miles around, and is being sunk cheaper than any other in the neighbourhood. . . . At the bottom of the old main shaft the reef is 5 feet wide, and is being driven on north and south to prepare the ground for stoping. When the new shaft is down to this level we will crosscut to meet it. A party of men will shortly be put on to crosscut at 100 feet from Reedie's shaft westerly to cut the roof there, and test the ground in between. In the various ore paddocks we have about 500 tons of good quartz, which appears to be as rich as that last crushed by the former owners—in fact, it comes from a continuation of the same workings. (The last crushing was 63 loads for 238 ounces). So soon as we get sufficient water this will be crushed, and the yield cabled home. The result from this parcel should meet all mine expenses to date, including the sinking of the new shaft. Considering this quartz has been principally obtained from drives, this must be considered very satisfactory. We will have to crosscut 150 feet at the 250 feet level to cut the reef.—Extract from letter of Mr. Thomas White (the mine manager) to Mr. Danvers Power, dated February 24: The new shaft is now down 102 feet from the surface. This is most satisfactory sinking for the time—viz., five weeks and three days, considering we have also put in two frame sets for pumps, and close timbered the shaft almost throughout.

MOUNT MAGNET.—The following fortnightly report has been received from the general manager, dated March 2: No. 1 shaft north. The drive south at the 60 feet level has been extended 12 feet. The lode at 6 feet behind present face was heaved slightly to the east, and pinched to about 12 inches wide. It is yielding stone of rich quality. Mullock Pass is sunk a further distance of 22 feet, total depth 56 feet. The reef here is 2 feet wide, yielding all 3 ounces material. When the contractors sink to the 60 level, I will invite tenders for the extension of the drive to connect with the main shaft.—Main shaft. During the past week we have fixed the collar set of timber at the main shaft, and ordered sawn timber sufficient to secure 60 feet of the shaft. Below this the country (diorite) rock is quite hard, and will not require timbering other than dividings or centres.—Lease 64 mile. The office shaft is sunk to a depth of 50 feet, where we have crosscutted the lode, proving it to be 6 feet wide. The stone when "dollied" yields at times fine gold. During the ensuing week I purpose taking a fair bulk sample and having it tested by fire assay. The south-east boundary shaft is sunk 45 feet from surface, where the lode was tapped. It was my intention to open out at 60 feet deep, but could not procure windlass to peg sufficient length. It is about 18 inches wide, producing good prospects. Good progress is being made with the buildings and surface improvements.

PESTARENA.—April 4: In the 33 fathom level east on No. 1 lode the brand on hanging wall averages 15 centimetres wide, and yields 1 ton per fathom, worth 1 ounce. The 46 east has opened up some rich ore during the month. Lode now 40 centimetres wide, and yielding 4 tons per fathom at 2 ounces 10 dwts. per ton. The 46 east on Caunter carries a small branch of low grade ore, which will probably improve. The 46 east on Pozzone lode carries a lode 2 metres wide, with a branch of ore on each wall, one 30 and the other 20 centimetres wide, mixed with fine pyrites. The 55 east on No. 1 lode continues wide and wet; a branch of quartz shows in the foot 30 centimetres wide, making pyrites occasionally. An intermediate level over the 90 east is yielding 5 tons per fathom at 1 ounce 10 dwts. No change in the crosscuts.—Stopes. At the 46 east on Caunter the lode yields 2 tons per fathom at 1 ounce. At the 55 east on No. 1 lode the lode is 40 centimetres wide, and yielding 4 tons per fathom at 2 ounces. There are two stopes at the 70 east; one is in a splendid lode of solid pyrites 60 centimetres in width, giving 9 tons per fathom at 4 ounces per ton, and the other is producing 6 tons per fathom at 2 ounces 10 dwts., and is likely to improve in height. At the 70 west on A and B lodes a stope is yielding 2 tons at 1 ounce 15 dwts. At the 90 west on No. 1 lode there is a stope yielding 2 tons at 1 ounce 10 dwts., and at the 100 west one giving 3 tons per fathom at 1 ounce. Average of 7 stopes, 4 tons per fathom at 2 ounces 10 dwts. At Stabioli the crosscut west from Morghen adit has passed through a small vein of quartz, but is now in schist.—Kint Concession. New lode in Goja adit. The end east is suspended to make a trial on western side to ascertain which presents most promising appearance for further trials. The Depaulis lode in the end east from the adit is 1 metre wide, carrying 40 centimetres of fair looking ore in roof; for 80 centimetres in width the lode is mixed with fine low grade pyrites, and looks most promising. In the Quarazza winze the lode is 80 centimetres wide, with a branch in the bottom 20 centimetres wide; the ore is becoming wider, and the pyrites much more massive.—Pozzone. Since March 12 the mine has been forked 26·70 metres.—W. H. Trelease, T. H. Mesa.

PRINCESS ESTATE.—Report on the company's operations for month of February:—Mine. Number of feet sunk and driven 279 feet.—Mill. Number of days (24 hours) working 30 stamps 24½ days, ore milled 3225 tons, yield in smelted gold 1295·28 ounces, average per ton 8·03 dwts.—Cyanide works. Tons of tailings treated 3025 tons, yield (in bullion of 60s. value) 579 ounces.—Revenue and expenditure. Expenditure. Mining, hauling, and pumping £2375 3s. 3d., sorting and tramming £302 18s. 5d., reduction £623 10s. 5d., general charges at mine and head office £448 15s. 10d., mine development redemption on 3225 tons at 6s. 6d. £1048 2s. 6d.; working expenses at cyanide works £604 8s. 11d.; total £5402 19s. 4d.; balance (profit for month) £1247 0s. 10d.; total £6650 0s. 2d.—Revenue. Mill gold (1295·28 ounces at 72s.) £4663 0s. 2d., cyanide gold (579 ounces at 60s.) £1737, water rent and licences £250; total £6650 0s. 2d.—N.B. The revenue from water rents and licences varying very much in each month, the average of the annual receipts under this heading has been adopted in this report.—Working costs per ton. Mining, hauling, and pumping on 3225 tons 14s. 8·8d., sorting and tramming on 3225 tons 1s. 10·6d., reduction on 3225 tons 3s. 10·5d., general charges on 3225 tons 2s. 9·1d.; total 23s. 3d.; mine development redemption 6s. 6d., cyanide works (on tonnage treated, 3s. 11·4d.) 3s. 9d.; total 33s. 6d.—Total expenditure. Working expenses £5402 19s. 4d., on capital account, for development, permanent works £1221 0s. 5d., machinery and plant, buildings, &c., £627 3s. 7d.; total £7251 3s. 4d.; less amount redeemed from mine development on 3225 tons milled at 6s. 6d. £1048 2s. 6d.; total £6203 0s. 10d. The scarcity of native labour has materially hampered the company's operations; during a part of the month only 20 stamps could be kept working, thus reducing the number of working days on the basis of 30 stamps. The management was unable to sort the ore to the same extent as in former months, through this want of labour which explains the lower grade per ton.—F. W. Diamond, secretary.

SMELTING COMPANY OF AUSTRALIA.—The managing director's advices show satisfactory progress is being made in the construction of the works at Illawarra. Most of the machinery, to be manufactured on this side, has been shipped, and the various plant to be procured in the colony is in a forward state. The directors expect that in a few months they will have advices that actual operations at the works have commenced. The directors have also to report that a considerable number of tests have been made on this side by the processes belonging to the company on the refractory sulphide ores, and they have proved most successful. The directors have authorised an expenditure for development purposes on the White Rock, and the reports which have come to hand indicate that the property will prove to be a most valuable asset. They have decided not to work the various mining properties themselves, and they will commence shortly to make arrangements for their being worked under separate management.

VENTURE SYNDICATE.—Cable received by the Venture Syndicate from their managing director in Perth (W.A.):—Craig-y-Hos (Menzies). 1 shaft, 100 feet (deep), crosscut 17 feet, drive on the line of the reef 43 feet, reef 17 feet wide, 200 tons at grass, Estimate the net yield at 1 ounce 10 dwts. per ton. 2 shaft, 100 feet deep, crosscut 16 feet, reef 3 feet wide, 20 tons at grass. Estimate the net yield at 12 dwts. per ton. 3 shaft, 84 feet deep. 4 shaft, 17 feet deep.—Croesus Consols (Hannan's). South shaft 86 feet, crosscut to the west 26 feet, reef 10 feet wide, average 2 ounces.—Good Luck (Hannan's). North shaft 84 feet, crosscut to the east 13 feet.—Normanby (Cue). Winze has been sunk 40 feet. Splendid body of ore, 3 feet, hanging wall very good. Estimated 70 tons at grass, average 2 ounces.—Haro's leases (north of White Feather). Brand's report posted, estimates several hundred thousand tons average 1 ounce, prospects great.—Wasparilla (Bardoo). Development quite satisfactory. Foreman reports property superior anything at Hannan's.

WEMMER.—Report for the month of February: Expenditure. Mining account, £4640 6s. 1d.; sorting account, £266 11s. 1d.; less stone sold, £192 17s. 3d.—£73 13s. 10d.; water service from pan to mine, £5 14s. 4d.; 8869 tons were obtained at a total cost of £4719 14s. 3d.—Reduction expenses. Crushing ore £1458 3s., cost per ton 4 3·45; concentration £266 9s. 3d., cost per ton 9 40; tailings wheel £15 18s. 9d., cost per ton 0·56; electric lighting £64 17s. 1d., cost per ton 2·29; rock breaking at main shaft £123 8s. 2d., cost per ton 4·36; transport of ore to mill £116 7s. 3d., cost per ton 4·10; total 6802 tons, cost £2045 3s. 6d.—General charges. Licences, medical expenses, directors' fees, sanitary expenses, accident and fire insurance, London office expenses, salaries, and charges, £449 0s. 5d.—Development. Redemption 6802 tons, cost £2380 14s.—Cyanide works. Treating 4750 tons, cost £548 13s. 7d.; total, £10,143 5s. 9d.; profit for the month, £6559 1s. 11d.—Revenue. Gold account, Battery bullion, 3,046·12 ounces, estimated at £11,042; cyanide bullion, 1221·45 ounces, estimated at £3883 1s.; concentrates estimated for February, £2011 6s. 6d.; less shortage for December, £233 19s. 10d.—£1777 6s. 8d. Total amount spent on development, including 480 feet of driving and sinking, £2240 12s. 6d.—Capital account. Main shaft, cutting 1000 feet cistern, timbering, ladders, &c., £110 0s. 8d.; machinery, buildings, and general improvements, £447 4s. 3d.; total, £557 4s. 11d.—Milling results for February. Stamps at work, 50; working time, 27 days 16½ hours; tons crushed, 6802; tons crushed per head per day, 4·91; bar gold extracted, 3046·12 ounces; yield per ton crushed, 8·95 dwts.; tailings treated, 4750 tons; bullion from tailings, 1221·45 ounces; concentrates caught, 140 tons; assay value of concentrates, 5 ounces 0 dwts. 12 grains. Note.—The total yield per ton, including extraction from tailings and concentrates, 14 007 dwts. fine gold.

OMEO.—Samples of quartz from the various workings of the mines have been received in London and submitted to Messrs. Johnson, Matthey, and Co., for assay, with the following highly satisfactory result:—No. 1 reef No. 1 shaft, 5 ounces; No. 1 reef No. 3 shaft from surface, 9 ounces 10 dwts. 16 grains; No. 1 reef No. 3 shaft 60 feet from surface, 10 ounces 5 dwts. 6 grains; No. 1 reef No. 3 shaft mineral stone from bottom of shaft, 8 ounces 16 dwts. 12 grains; No. 1 reef No. 4 shaft, 4 ounces 4 dwts. 12 grains; No. 2 reef, 3 ounces 6 dwts.; No. 3 reef, 1 ounce 19 dwts. 18 grains—per ton of 2240 lbs. of mineral. The development of the property is proceeding very satisfactorily.

VICTORY GOLD.—Mr. Santelli reports March 7, as follows: The work on La Cruz section is already sufficiently advanced to permit of our very soon having 30 to 40 tons, or even more, of quartz daily, and before the installations at the mill, automatic inclined plane, &c., are completed, we shall have a good stock of quartz on the tram road.—Santelli level. I have completed the raise in this level, and have started two miners to work on this first lode, and am pushing on the main level with only one miner, but on Monday, if some miners arrive, I hope to be able to re-organise this part of the work.

ALMADA AND TIRITO.—Report for the fortnight ending March 14: Drivages. The lode in Ibarra's tunnel driving south is of a hard quartzose nature, showing good stones of ore. The lode in the 150 feet level driving south of Taylor's shaft is massive, composed of quartz with intrusive porphyry, and yielding occasional stones of green ore. In the 150 feet level driving north of Taylor's shaft the lode has improved, being over 6 feet wide, carrying well-defined walls, and is mineralised throughout. I estimate the present forebreast will yield 3 tons of green ore per fathom at 55 ounces silver per ton. The lode in the 150 feet level driving south of Wilde's shaft has also improved, and is yielding small quantities of ore, containing 21 ounces silver per ton. The lode in the 150 driving north of Wilde's shaft has a nice appearance, but only yields occasional stones of ore.—Shafts, The sinking of Taylor's shaft has been greatly retarded, owing to the disturbed character of the hanging wall, which requires timbering. The lode has fallen off slightly in value, a bright quartz taking the place of the ore in the south end of the shaft. Our progress has been slow also at Wilde's shaft, but we are now making better headway. The lode has improved in appearance.—Stopes. These have again improved, and we are now getting fair returns.—John Nute.

AUSTRALASIAN MINING.—Fortnightly report of Captain John James, mine manager, dated February 27: During the past fortnight Bishop and party have sunk the shaft an additional 27 feet, total 733 feet; and have timbered 18 feet, making a total of 715 feet timbered. I mentioned in my last report getting some leaders running the usual course of a reef, but they turned out to be nothing of any importance. At 710 feet from the surface a plumbago seam about 2 inches thick was met with, then 2 feet of slate and black rock, after which we came on to the sedimentary rock or grey whackey which overlaps the main bed of slate. This continued for 21 feet, and we are now sinking in black rock, which makes me think the slate is close at hand.

AUSTRALIAN BROKEN HILL CONSOLS.—The mining manager reports by mail for the fortnight ended February 27 as follows:—Block 96. 280 level east No. 3 rise driven 7 feet 6 inches, total 85 feet. No change.—Incline. West stopes driven 8 feet. The lode here is smaller, and rising very steep. A little galena has been met with. No. 6 level east driven 5 feet, total 107 feet. Stope upwards driven 2 feet 6 inches. The lode here has pinched, but is widening out again, the country being very hard. A little galena and fahlerz has been met with. Stoped upwards, where fahlerz and mundic was showing in the lode. No. 5 level east driven 11 feet, total 316 feet. The lode formation is 4 feet wide, carrying three veins of carbonate of iron, showing a little mundic.—No. 4 level east, No. 1 rise. East stope driven 10 feet, west stopes driven 8 feet. Stoping continued; a little galena and fahlerz has been raised. Two of the men have been part of their time working in No. 6 level east to push this drive ahead.—No. 2 level west. Stopes driven 13 feet. Stoping continued upwards and eastwards. Grey ore, galena, and a trace of iodide of silver has been met with.—Note. The quantity of rock mined during this fortnight was 2430 cubic feet.

BAYLEY'S REWARD CLAIM.—Mining report dated Coolgardie, February 18: The following is report of work done for the fortnight ending 15th inst.—Main shaft. This shaft has been sunk an additional 11 ft., total depth 468 ft. The ground, which continues hard, carries veins or stringers of quartz. The work of sinking has been discontinued, and the only men now at work are those engaged sinking the air shaft.—Air shaft. This shaft has now reached a depth of 96 feet, having been sunk 16 feet for the fortnight. The ground in the bottom is tight for working and carries stringers of quartz.—(Signed) Tom V. Browne, manager.

BALAGHAT MYSORE.—Thomas Richards: Report for the fortnight ending March 14: Ogle's shaft. The 270 feet level south from the crosscut east near south shaft has been driven 20 feet 9 inches, total distance 43 feet 6 inches; quartz 4 inches wide, assays 1 dwt. of gold per ton. The drivage of the 270 north from the same crosscut has been suspended.—Haines' shaft. The 410 feet level north crosscut east has been extended 1 foot 6 inches, total distance 66 feet; no change.

BRITISH BROKEN HILL PROPRIETARY.—Mining manager's report for the week ending February 26; Blackwood shaft. From the eastern vein in the southern part of the mine about the 100 feet level a lot of high grade ore has been broken and the faces are still looking well. We have mined from here 288½ tons ore, which have been dumped on the surface, which averaged 49½ per cent. lead and 6 ounces silver.—Howell shaft. In the far north stopes splendid faces of ore are being opened up going south, and we have hoisted from here during the week 105 tons of ore, averaging 37 per cent. lead and 2 ounces silver per ton.—Surface. Good progress is being made in the erection of the mill, everything proceeding very satisfactorily.—Ore shipments. 30 trucks carbonate ore from Marsh shaft were despatched to Port Adelaide during the week. Assays of following lots (three) have been agreed with Block 14 Company from previous deliveries, viz.:—175 tons (net), containing 35½ tons lead and 5313 ounces silver; also one lot with Block 14 Mine of 141½ tons (net), containing 39½ tons lead and 1768¾ ounces silver.—Week's assays: Carbonates. Lead from 15 to 51½ per cent and 1 6 to 26·2 ounces silver per ton.

CLUTHA GOLD (Barberton, Transvaal).—The manager, writing under date March 4, reports as follows:—C winze. There is no change to report here. Rock still carries visible gold in places, also considerable quantities of pyrites. Average pannings, through week, of fine gold, 8 to 9 dwts. Have not yet been able to obtain natives to continue 200 feet level.

CRESCENT.—Fortnightly report of Mr. T. G. Davey, superintendent, dated February 28: Crescent Mine. South tunnel B towards main shoot extended 15 feet, total 399 feet. Slate traversed by small veins of quartz of no value. Hanging wall not yet reached.—Victory Mine. Drive north of deep tunnel E on Neill's shoot advanced 28 feet, total 124 feet. Ground much softer, and intermixed with quartz leaders. Drive south of same tunnel advanced 16 feet, total 91 feet The lode became poor at 85 feet. This shoot is, therefore, 15 feet in length. The lode formation in end of drive is 150 feet wide, between walls, of which a portion still carries gold, although not in payable quantities. We should, however, soon reach the second shoot of payable stone discovered at the surface. Extension of tunnel E towards western lode advanced 13 feet, total 186 feet. We have just traversed a vein of quartz 18 inches in width, which carries a little gold, and will be further developed later on. Drive south of tunnel G on western lode advanced 49 feet, total 159 feet, carrying a small vein of quartz, which is slightly auriferous.—Chance Mine. A man is employed prospecting on this lease, and has trenched at three points, the most easterly of the six lodes discovered on the property. In two of these trenches the vein 1 foot wide, and gold is visible in the stone, the estimated value of the lode being 1 ounce of gold per ton. A tunnel is about to be driven on the course of this lode from the level of the river, and from this tunnel crosscuts will subsequently be extended to intersect the other lodes.—Orlando Mine. Deep tunnel P advanced 19 feet 6 inches, total 211 feet 6 inches. Passed through a small vein of quartz. Ground much more favourable for driving.—Erection of mill. The Pelton wheel two mortars, stamp, &c., are now in position. The shed is also erected, and the roofing almost completed. Much delay, however, is caused on account of the non arrival of portions of the machinery and concentrating plant. We hope to be able to start crushing during the coming month.

DARIEN GOLD.—The directors of the Darien Gold Mining Company (Limited) have received word from their manager that the mill has been stopped three weeks, whilst putting in new pithead gear, new Pelton wheel shaft, and new air winch and skips, which are now at work. Now running five stamps on good grade ore. In Mr. Noakes' last letter he said the season was so dry that there was not enough water to run more than five stamps just then.

ETHEL-HOPE.—The following is the fortnightly report, dated February 28, from the managers, Messrs. Bowes-Scott and Co., Coolgardie:—The main shaft has been deepened a further distance of 13 feet, total 53 feet. It has been securely timbered at the bottom, and the water supply is slowly increasing.—No. 1 shaft. This has been deepened a further distance of 6 feet, total 23 feet. Water has been met with at this depth, and sinking discontinued, and a start made to crosscut east for the lode.—Crosscut. This crosscut has been driven east a distance of 36 feet in soft sedimentary material, and nothing of value met with so far. No. 2 shaft has been sunk a further distance of 13 feet, total 23 feet. The country rock is of a tighter nature than it is in the other shafts.

HARRIETVILLE.—Fortnightly report of Mr. T. G. Davey, superintendent, dated February 28:—Tiddiedee Mine—Bibby's new lode. Drive north of shaft 100 feet below surface advanced 9 feet, total 54 feet. Lode 18 inches wide, and valued at 12 dwts. per ton. We have passed through a small branch of ore, which was valued at 4 ounces per ton. Drive south of tunnel F extended 35 feet, total 150 feet. Lode 1 foot wide, and valued at 8 dwts. per ton. Drive north of tunnel E advanced 15 feet, total 19 feet. Lode 1 foot wide, but poor. South drive at same level extended 16 feet, total 21 feet. Lode 3 feet wide, and somewhat auriferous, but not payable. We are now driving south of shaft, 25 feet below the surface, where the lode is 18 inches wide, and valued at 1½ ounces of gold per ton. A parcel of about 30 tons is being crushed at the mill. An old pass between tunnels E and D is being repaired, in order to facilitate the delivery of the stone to the mill by tramway, instead of carting as hitherto.

KABOONGA.—Fortnightly report from the mine, dated March 3: North-west deep level. This drive has been extended to 332 feet 6 inches from starting point, through hard country, which now shoots well. Tenders for fresh driving contract are now being dealt with.—Top level from south-west rise. Four drives in wash dirt are now open, but progress has been slow through water difficulties. The wash dirt is 60 to 70 feet above main level.—No. 1 drive north-west has been very troublesome, temporary bursts of water and sand having much delayed operations and stopped the wash dirt work. The water, however, indicates a wide area of alluvial. This drive is now standing, that it may drain.—No. 2 drive south-west is in 125 feet in slightly undulating country, giving fair prospects, and opening up an extensive field of good looking rough wash, with large water-worn quartz boulders. No. 3 drive has been opened off No. 1, opposite No. 2, and goes north-east, or in the direction of the shaft. It is in 28 feet, the bottom has risen 4 feet, but is dipping again. The prospects so far have not been quite so good as in the other drives. No. 4 drive has been opened to go south-east off No. 2. It has been driven 8 feet in strong wash, similar to that in No. 2.—Sluicing. Five machines have been sluiced off since last report, giving an average yield of 1 ounce 18 dwts. 10 grains of gold.—Balance shaft. Tenders are being called for extending the south-west main level 40 feet, and putting up a balance shaft, so that trucks filled at the faces may convey wash dirt without farther handling to the machines, and mullock to the tip. Balance cages, large pulley, &c., have been secured. At present everything is tipped down the rise, and has to go through the machines. The rise will be used as a timber ladder and waterway.

LISBON-BERLYN.—The manager's advices give the following details of work done during February: Mining. Theta north, 107 feet driven; thickness of reef, 15 inches; output, 416 tons; assay value, 6 dwts. per ton; Theta No. 2, 158 feet driven; thickness of reef, 14 inches; output, 58 tons; assay value, 6·38 dwts. per ton; Theta south, 435 feet driven; thickness of reef, 15 inches; output, 902 tons; assay value, 13 dwts. per ton; Theta mill section, 171 feet driven; thickness of reef, 10 inches; output, 36 tons; assay value, 9 dwts. per ton.—Milling. 10 stamps ran 13½ days, and crushed 330 tons. Ore of an average assay value of 10·28 dwts. per ton, yielding 33·68 ounces of smelted bullion. The stamps are now all hung up.—Cyaniding. 850 tons of dry crushed and screened ore, and 730 tons of tailings were put into the vats during the month, and the bullion recovered amounted to 787·55 ounces. Total bullion recovered, 821·23 ounces, of an approximate value of £1825.

MYSORE REEFS (Kangundy).—Fortnightly report of Captain M. Scantlebury, mine agent, dated March 18: Underlie shaft. This shaft has been sunk 7 feet 9 inches, now 99 feet 6 inches below the 425 feet level. The quartz is 6 inches wide, assaying 4 dwts. 6 grains of gold to the ton. Intermediate level, 60 feet below the 425, has been extended 13 feet, now 39 feet from shaft. The quartz is 18 inches wide, assaying 6 dwts. of gold to the ton.—Stope behind this end. The quartz is 1 foot 9 inches wide, assaying 8 dwts. of gold to the ton. 425 feet level north has been advanced 12 feet, now 177 feet 6 inches from shaft. The lode is 1 foot 6 inches wide, composed of quartz, arsenical and iron pyrites, with country rock, assaying 4 dwts. of gold to the ton. Winze below the 425 feet level has been sunk 5 feet 3 inches, now 144 feet 6 inches below the level. The quartz is 2 feet wide, assaying 1 ounce 2 dwts. of gold to the ton.—Stope north of winze. The quartz is 1 foot 6 inches wide, assaying 1 ounce 5 dwts. of gold to the ton.—Vertical shaft, 318 feet level north has been extended 6 feet 6 inches, now 14 feet 6 inches from shaft. The quartz is 6 inches wide, assaying 1 ounce 5 dwts. of gold to the ton. The 318 feet south has been extended 8 feet, now 13 feet 6 inches from shaft. The quartz is 6 inches wide, assaying 2 ounces 4 dwts. of gold to the ton. Crosscut east of the 260 feet level north has been extended 16 feet, now 26 feet 3 inches from level. New north shaft has been sunk 5 feet, now 101 feet 3 inches from surface. Trial shaft in old workings to the east of new north shaft has been sunk 4 feet, now 29 feet from surface. We are still in ancient workings.

MOUNT LYELL.—Engineer in charge of the mine reports for week ending February 21: No. 3 tunnel, south drive. Drive extended 3 feet, total 547 feet 6 inches. There is no change to report, except that pyrites are rather hard.—No. 4 tunnel, south drive. Drive advanced 6 feet, total 450 feet.—No. 4 tunnel, south drive, No. 3 crosscut. Face has been advanced 6 feet, total 10 feet; good ore.—No. 4 tunnel, south drive, No. 4 crosscut. Face advanced 2 feet, total 2 feet; through rich copper ore. The levelling of machinery site has been progressing well, and a gang has been starting levelling benches for open-cut preparatory to laying rails.—Progress report for week ending February 21: Hauling line. Platelaying now entirely completed, ballasting of terminus in progress on mine side, preparing for bin foundations, bank engine in good running order, will erect brake.—Smelter building. Laying feed floor, completing superstructure of bins, &c.—Crusher building. Finishing off bin housing and roof over engine room, framing and erecting sampling rooms and various annexes.—Mill flue. Upper terminus against pedestal of main chimney completed.—Babcock and Wilcox boilers. Brick casings in progress.—Blast furnaces. Assembling wrought iron superstructures of both furnaces in place above feed level, brickwork there in progress, brick linings of both hearths completed, both batteries of lower water-jackets in place, also both hostle pipes, everything throughout coming together satisfactorily.—Hot blast stoves. Front supporting piers all finished, arches over fire boxes in progress.—Furnace service tank. Completed, and flume and reservoir connected with same.—Converter department. Outside flue completed, vertical dust chamber in progress, entire line of excavation for hill flue to chimney about finished. Grading for permanent inclined tramway from converter floor past smelter tapping floor to crusher siding.—Lime and silica quarries. Opening-up operations started, forming continuations of sidings into quarries. Weather mostly fine.—Railway superintending engineer reports week ending February 22: Very good progress is being made with the works, and the weather has been fine until yesterday, when rain again set in.

MYSORE.—Mining operations for the fortnight ending March 16: Rowse's shaft, 1460 feet level north of crosscut west. There are three stopes in the back of this level, the average width of the lode being 3 feet 8 inches, giving an average assay of 13 dwts. 1 grain.—1460 feet level north of sump winze. The lode in the stope in the back of this level is 5 feet wide, assaying 15 dwts.—1360 feet level south of crosscut. There are four stopes in the back of this level, the average width of the lode being 1 foot 7 inches, giving an average assay of 1 ounce 1 dwt. 12 grains.—1360 feet level north of crosscut. The lode in the stope in the back of this level is 1 foot 6 inches wide, assaying 13 dwts. 1 grain.—1360 feet level north of sump winze north east. This level has been driven 17 feet 6 inches, making a total distance driven of 407 feet 6 inches. The rise in the back of this level has been put up 13 feet, making a total height of 85 feet 6 inches. The lode is 1 foot 6 inches wide, assaying 13 dwts. 1 grain,—1360 feet level south of sump winze, This level has been driven 6 feet 6 inches, making a total distance driven of 187 feet 6 inches. We have temporarily suspended the driving of this. There are two stopes in the back of this level, the average width of the lode being 4 feet 6 inches, giving an average assay of 14 dwts.—1260 feet level north. There are five stopes in this level, the average width of the lode being 2 feet 7 inches, giving an average assay of 1 ounce 0 dwts. 7 grains.—1260 feet level north of crosscut. This end has been driven 17 feet, making a total distance driven of 105 feet. The lode is 5 feet wide, assaying 1 ounce 15 dwts. The rise in the back at the end of the crosscut has been put up 16 feet, making a total height of 98 feet. Lode 4 feet wide, assaying 3 ounces.—1260 feet level south of crosscut. This end has been driven 19 feet 6 inches, making a total distance driven of 131 feet. The lode is 3 feet wide, assaying 1 ounce 15 dwts.—1260 feet level south. This level has been driven 4 feet 9 inches, making a total distance driven of 277 feet 3 inches. The lode is 1 foot wide, assaying 15 dwts. There are two stopes in the back of this level, the average width of the lode being 2 feet, giving an average assay of 1 ounce 5 dwts.—1160 feet level north of crosscut. This end has been driven 18 feet, making a total distance driven of 135 feet. The lode is 5 feet wide, assaying 2 ounces.—1160 feet level south. The rise in the back of this level has been put up 12 feet, making a total height of 199 feet. This lode having become pinched, and the ventilation bad, we have temporarily suspended this working There are six stopes in this level, the average width of the lode being 1 foot 10 inches, giving an average assay of 1 ounce 3 dwts.—North of the crosscut east. The lode in the stope in the back of this level is 2 feet wide, assaying 1 ounce 5 dwts.—1060 feet level north. The crosscut east in this level has been driven 9 feet, making a total distance driven of 14 feet.—890 feet level north. The lode in the stope in the back of this level is 2 feet wide, assaying 1 ounce 15 dwts.—780 feet level north. The lode in the stope in the back of this level is 2 feet 6 inches wide, assaying 1 ounce.—620 feet level south. There are two stopes in the back of this level the average width of the lode being 2 feet, giving an average assay of 15 dwts.—Crocker's shaft. We have resumed the sinking of this. Sunk 19 feet, making a total depth of 19 feet below the 1060.—Driving north at the 1060 for plat. Driven 6 feet, making a total distance driven of 41 feet, and completed.—1060 feet level north. This level has been driven 19 feet, making a total distance driven of 83 feet 9 inches north of the crosscut to Crocker's shaft. There is nothing here to report.—1060 feet level south. The rise in the back of this level has been put up 17 feet 6 inches, making a total height of 39 feet 6 inches. The lode is 5 feet wide, assaying 3 ounces. This rise is 43 feet south of the crosscut to Crocker's chute shaft, and was formerly called the No. 2 rise in the back of the 1060 north of the crosscut.—890 feet level north. This level has been driven 30 feet, making a total distance driven of 283 feet. The lode in the stope in the back of this level is 6 feet wide, assaying 15 dwts.—890 feet level south. There are five stopes in the back of this level, the average width of the lode being 4 feet 9 inches, giving an average assay of 1 ounce 2 dwts.—780 feet level north. The lode in the stope in the back of this level is 5 feet wide, assaying 1 ounce.—780 feet level south. There are eight stopes in the back of this level, the average width of the lode being 3 feet, giving an average assay of 18 dwts. 3 grains.—620 feet level south. The lode in the stope in the back of this level is 1 foot 6 inches wide, assaying 10 dwts.—236 feet level north. The lode in the stope in the back of this level is 1 foot 6 inches wide, assaying 15 dwts.—Taylor's shaft, 466 feet level north. The lode in the stope in the back of this level is 1 foot 6 inches, assaying 13 dwts. 1 grain.—Gilbert's shaft. This shaft has been sunk 15 feet, making a total depth of 176 feet below the 650.—650 feet level north. The rise in the back of this level has been put up 16 feet, making a total height of 29 feet. The lode is 7 inches wide, mixed, no sample taken.—520 feet level north. The lode in the stope in the back of this level is 2 feet wide, assaying 13 dwts. 1 grain.—520 feet level south. The winze in the bottom of this level has been sunk 4 feet, making a total depth of 50 feet. The lode is 1 foot 8 inches wide, assaying 15 dwts. The lode in the stope in the back of this level is 1 foot 6 inches wide, assaying 15 dwts.—360 feet level north. The lode in the stope in the bottom of this level is 2 feet wide, assaying 10 dwts.—290 feet level north. There are three stopes in this level, the average width of the lode being 1 foot 8 inches, giving an average assay of 12 dwts. 4 grains.—180 feet level south. There are two stopes in the back of this level, the average width of the lode being 2 feet, giving an average assay of 13 dwts. 3 grains.—Tennant's shaft. 750 feet level north of the crosscut west. This end has been driven 17 feet, making a total distance driven of 347 feet 6 inches. The lode is 3 feet wide, assaying 12 dwts. 9 grains.—520 feet level north. The lode in the stope in the back of this level is 2 feet 6 inches wide, assaying 13 dwts. 1 grain.—360 feet level north, south of crosscut. There are two stopes in this level, the average width of the lode being 2 feet, giving an average assay of 13 dwts. 1 grain.—290 feet level south. The lode in the stope in the back of this level is 1 foot 6 inches wide, assaying 1 ounce.—Schaw's shaft, 450 feet level north of crosscut. There are two stopes in the back of this level, the average width of the lode being 1 foot, giving an average assay of 1 ounce 1 dwt. 12 grains.—450 feet level south of crosscut. The lode in the stope in the back of this level is 1 foot 6 inches wide, assaying 10 dwts.—320 feet level north. There are two stopes in the back of this level, the average width of the lode being 2 feet 6 inches, giving an average assay of 11 dwts. 12 grains.—McTaggart's shaft. This shaft has been sunk 8 feet 6 inches, making a total depth of 46 feet 6 inches below the 650.—650 feet level north of crosscut west. This level has been driven 2 feet, making a total distance driven of 10 feet. The lode is 1 foot 3 inches wide, assaying 1 ounce.—650 feet level south of crosscut west. This level has been driven 15 feet, making a total distance driven of 64 feet. The lode is 1 foot wide mixed, assaying 3 ounces.—550 feet level north. This level has been driven 2 feet 9 inches, making a total distance driven of 400 feet 5 inches. There is nothing here to report. The winze in the bottom of this level has been sunk 2 feet 9 inches, making a total depth of 25 feet 9 inches. The lode is 6 inches wide, assaying 1 ounce 5 dwts.—550 feet level south of crosscut west. This level has been driven 13 feet, making a total distance driven of 367 feet 9 inches. The lode is 1 foot wide, mixed, no sample taken. The No. 1 winze in the bottom of this level has been sunk 2 feet 6 inches, making a total depth of 63 feet 6 inches. The lode is 9 inches wide, assaying 13 dwts. 1 grain. The No. 2 winze in the bottom of this level has been sunk 5 feet 6 inches, making a total depth of 37 feet. The lode is 1 foot wide, assaying 13 dwts. 1 grains.—320 feet level south. There are two stopes in the back of this level, the average width of the lode being 2 feet 6 inches, giving an average assay of 10 dwts.—Prospect shaft No. 2, 117 feet level south. This level has been driven 9 feet, making a total distance driven of 30 feet.—Ribblesdale's shaft. This shaft has been sunk 10 feet 6 inches, making a total depth of 60 feet below the 1520. The lode is 2 feet wide, assaying 5 dwts. 5 grains.—1520 feet level north. This level has been driven 15 feet 6 inches, making a total distance driven of 129 feet. The lode is 2 feet wide, assaying 6 dwts. 12 grains.—Crosscut west from the 1060. This has been driven 13 feet, making a total distance driven of 135 feet.—William's shaft, crosscut east from the 173. This end has been driven 2 feet, making a total distance driven of 188 feet 6 inches. Health good.—R. Hancock.

MYSORE WEST AND MYSORE WYNAAD CONSOLIDATED.—Tank Mine.—Half-monthly report to March 15:—South shaft, 507 levels. No. 1 level driven north on the west lode has been driven to a distance of 59 feet 6 inches, progress 13 feet. The lode is 15 inches wide, and now assays 4 dwts. per ton. A small patch assaying 2 ounces 1 dwt. was passed through. No. 2 level is driven south on the east lode. This level is now in 43 feet 3 inches, progress 24 feet 3 inches. The lode has narrowed down at this point to 18 inches, but the average width has been 3 feet of lode, worth on an average 1 ounce 10 dwts. per ton. No. 3 level is driven north on the east lode. This level is now in 45 feet 3 inches, progress 25 feet 9 inches. The lode is 4 feet wide, but is somewhat mined, and is worth 10 dwts. per ton.—450 level north winze has been sunk to a depth of 25 feet 6 inches, progress 5 feet. The quartz has divided and thinned out since last report. The lode dipping to the

west is 2 feet wide, and worth 16 dwts. per ton.—450 level south winze on east lode. We have started a winze on the eastern quartz met in the 450 crosscut. This we expect to turn back, and join up with the 507 No. 2 level on east lode. This has been sunk 2 feet. Width of quartz undermined (above 4 feet), and worth 12 dwts. per ton. 450 north stope contains 3 feet of quartz, worth 4 dwts. per ton. 450 south No. 1 stope (stopped) 6 feet of quartz, worth 7 dwts. per ton. 450 south No. 2 stope 2½ feet of quartz worth 18 dwts. per ton. South intermediate stope 12 feet of quartz, worth 11 dwts. per ton.—Walker's shaft is down 67 feet 6 inches, progress 12 feet. We have struck a granite cross course, which is letting down a lot of water.—Mill. The new 10 heads are running well. In the old 10 heads the Cam shaft is giving trouble.

NINE REEFS.—Mine report for fortnight ending March 16:—Vyvyan's shaft. No. 1 stope in bottom of the 145 feet level north, quartz is 4 to 5 inches wide, assaying 5 dwts. 4 grains of gold per ton. No. 2 stope in bottom of 145 feet level north, quartz is 3 to 4 inches wide, assaying 7 dwts. of gold per ton. No. 1 stope in back of 145 feet level south, quartz is from 3 to 4 inches wide, assaying 4 dwts. of gold per ton.—Oriental lode, main shaft. Men are now engaged in cutting station plat at the 310 feet level before we commence sinking.—Baynard's shaft. This shaft is now clear 100 feet below the 185 feet level, and secured with the necessary timber.—Surface work. The erection of the new winding engine is progressing favourably.—Health. Good.

ROBINSON.—The following is the general manager's summary of operations of the company for February, together with statement of expenditure and revenue: Mine. Quartz mined, 14,075 tons.—Development. Drives, 693 feet; raises, 171 feet; crosscuts, 110 feet; total, 974 feet.—Main incline shaft (west): Fifth level. Driving west on south reef 16 feet.—Sixth level. Driving east on south reef 39 feet.—Seventh level. Driving west on main reef 40 feet; driving east on south reef 35 feet.—Eighth level. Driving west on main reef, 49 feet; driving on south reef 15 feet.—Ninth level. Driving east and west on main reef, 62 feet; driving west on south reef, 40 feet; raise, 39 feet; crosscut, 32 feet.—Tenth level. Driving west on main reef, 33 feet; driving east and west on south reef, 12 feet; raise, 37 feet.—Main incline shaft (east): Fourth level. Raise 55 feet.—Fifth level. Crosscut 29 feet.—Sixth level. Driving east and west on main reef, 60 feet; driving west on south reef, 31 feet.—Seventh level. Crosscut 49 feet.—Eighth level. Driving east on main reef, 36 feet; driving east and west on south reef 78 feet.—9th level. Driving west on main reef 40 feet, driving east and west on south reef 44 feet.—10th level. Driving west on main reef 26 feet, driving west on south reef 37 feet, raise 40 feet. Total 974 feet.—Mill. Stamps at work 120, net running time 25½ days, tons crushed 14,075, tons per stamp per diem 4·6, gold won from above 8866 ounces 11 dwts.—Chlorination and cyanide works. Gold won from own concentrates (by chlorination) 1038 ounces, bullion from tailings (cyanide process) 1713 ounces 13 dwts., bullion from slimes (Rand Central Ore Reduction Company, Limited) 1316 ounces 18 dwts.; from own ore 12,935 ounces 2 dwts., gold from concentrates purchased (by chlorination) 1887 ounces 3 dwts. Total 14,822 ounces 5 dwts.

EXPENDITURE AND REVENUE.
Crushed 14,075 tons.
Working expenditure.

					Cost per ton
Mining account (including mine maintenance)	£7,683	1	5	...	£0 10 11·01
Milling account (including mill maintenance)	2,344	11	1	...	0 3 3·98
General maintenance account ...	344	12	6	...	0 0 5·88
General charges	1,665	5	7	...	0 2 4·39
	£12,037	10	7	...	£0 17 1·26
Expenditure on mine development, (including main shafts)	2,734	15	4	...	0 3 10·63
Ditto on machinery, plant, and buildings	1,056	15	0	...	0 1 6 02
	£15,829	0	11	...	£1 2 5·91
Retreatment account:—					
Working expenses at cyanide and chlorination works ...	2,131	3	11		
Cost of concentrates purchased (including receiving)	6,363	15	6		
				£24,324	0 4
Profit for month				25,114	4 0
				£49,438	4 4
REVENUE.					
Gold account (mill), 8866 ounces 11 dwts, ...	£31,697	18	3		
Sundry revenue	170	0	0		
				£31,867	18 3
Slimes plant account:—					
2638 tons delivered				425	8 6
Retreatment account:—					
Gold account (tailings), 1713 ounces 13 dwts.	£5,483	13	6		
Carried forward	£5,483	13	6	£32,293	6 9

SHEBA.—The following report has been received from the general manager for the month of February: Mine. Above No. 5 level. No work has been done in the upper levels.—No. 5 level. The west drive was advanced 13 feet 6 inches. No. 2 south crosscut driven 16 feet 6 inches. No. 14 north crosscut driven 16 feet.—No. 6 level. Intermediate winze E was commenced, and sunk 21 feet.—No. 7 level. The east drive was extended 3 feet. No. 1 south crosscut driven 11 feet 6 inches. No. 9 north crosscut driven 16 feet.—No. 9 level. The east drive was advanced 29 feet. The west drive extended 27 feet. Intermediate winze D sunk a further 9 feet. No. 3 north crosscut driven 15 feet.—No. 10 level. The west drive extended 12 feet 6 inches.—No. 11 level. The west drive was advanced 31 feet. The east drive was advanced 5 feet. West incline shaft sunk 30 feet 6 inches. East incline shaft sunk 23 feet 6 inches.—Low level tunnel. The west drive on hanging wall continued 59 feet. No. 3 north crosscut commenced and driven 26 feet 6 inches.—Oriental No. 3 level. East drive No. 2 advanced 16 feet. West drive No. 2 advanced 21 feet 6 inches.—No. 5 level. Driven south 2 feet to connect with Rowe's winze.—Stopes. During the month the ore sent to the mill has been broken in Nos. 6, 8, and 9 level stopes; the two latter furnishing most of it. The month's working shows a further improvement in the value of the ore, the average produced over the plates being a fraction over 2 ounces 8 dwts. per ton, which is very satisfactory, as it is not an improvement for the month only, the value having gradually improved during the past eight months from 17 dwts. to 2 ounces 8 dwts. at this writing. The stopes between Nos. 8 and 9 levels are still showing excellent ore, especially the east stope, which, however, shows signs of narrowing considerably; it is now beaten away to near the floor of No. 9 level.—Development. No permanent change has taken place during the past month in any of the various ends that we are driving. During the month the two incline shafts have shown signs of coming into shoot ore, especially the west shaft. The indication is that we shall have a body of ore on No. 12 level to the west of the west incline shaft, as the latter passed through a little shoot ore in its west end, which is encouraging, as no body of ore has been struck yet to correspond with that on the level above. Preparations are now being made to sink winzes from Nos. 9 to 10, Nos. 10 to 11, and Nos. 11 to 12 levels in the shoot with a view to facilitating the stoping of the large body of rich ore known to extend through these levels.—Main shaft A. The ground above this shaft having been sufficiently trimmed to enable the hauling rope to pass up from No. 7 to the surface at the Edwin Bray block No. 2 level the timbering of the shaft collar has been recommenced, and in the course of a week this will be in readiness for the track, and sinking will be resumed at an early date.—Surface at the mine: Rock drill plant. A compressor house, 80 feet by 26 feet, has been erected at the mouth of the Low level tunnel, and the air compressor placed in position. The laying of the cable for the transmission of power to drive the compressor is rapidly nearing the mine. We expect to have the balance of the plant in order before the arrival of the electrical machinery.—Electrical: Electrical plant No. 3. This plant ran steadily during the month, losing less time than during any previous month, through any cause of its own, but was compelled to shut down 30 hours towards the end of the month for want of water, caused by a fall in the tunnel of the water race and a slight injury to the turbine gates, which has been repaired, and the plant is working as usual.—Electrical plant No. 3. At the generating station the foundations have been laid for the extension of the present plant, and the generating house has been enlarged to accommodate the same. The foundation for the 110 horse-power motor, to drive the air compressor, has been laid, and all is in readiness for the electrical machinery.—Surface works. The rebuilding of the assay office and smelting departments has been completed.—Oriental water race. The masonry wall from the intake of the Oriental race to a point 350 feet down the river was completed during the month, and I now consider the race safe from floods.

NUNDYDROOG. — Thomas Richards, report for the fortnight ending March 14; Kennedy's shaft. The water was drained by the 9th instant, and work was at once resumed in the bottom levels. The 700 feet level north has been driven 12 feet 6 inches, total distance 47 feet 6 inches. The lode, 2 feet wide, assays 5 dwts. of gold per ton. The 700 south has been driven 13 feet 6 inches, total distance 43 feet 6 inches. Lode 5 feet wide, assaying 6 dwts. 6 grains. The 600 north has been driven 13 feet 9 inches, total distance 423 feet. Lode 1 foot wide, assays a trace of gold. A rise has been commenced in the back of this level at 400 feet from the shaft, and has been put up 12 feet 6 inches. Lode 3 feet wide, assays 3 dwts. 18 grains. A crosscut west has been put out 17 feet from the present end of the 600 south at 345 feet from the shaft. Stringers of quartz have been intersected, assaying a trace of gold. In two stopes in the back of the 520 north, the lode averages 6 feet in width, and 11 dwts. 6 grains in assay value. The lode in the stope in the back of the 440 north is 10 feet wide, and assays 16 dwts. 6 grains. The 440 south has been driven 17 feet, total distance 1345 feet 6 inches. The 440 south crosscut west has been extended 12 feet 3 inches, total distance 120 feet. No change. The lode in two stopes in the back of the 370 north averages 2 feet 3 inches in width, and 1 ounce 11 dwts. 6 grains in assay value. The 370 north crosscut west has been extended 9 feet, total distance 487 feet 6 inches. No change. In the stope in the back of the 370 south the lode is 7 feet 6 inches wide, and assays 2 ounces 10 dwts. The 300 north has been driven 12 feet, total distance 370 feet. Lode 1 foot 6 inches wide, assays 3 dwts, 18 grains. The 300 intermediate level north has been driven 10 feet, total distance 18 feet 6 inches. The lode consists of stringers of quartz, assaying 4 dwts. 9 grains. In the 300 north back stope the lode is 3 feet 6 inches wide, and assays 1 ounce 2 dwts. 12 grains. The 230 north has been driven 4 feet 6 inches, total distance 373 feet 6 inches. The lode, 3 feet 6 inches wide, contains a trace of gold. In the 230 north back stope the lode is 8 feet 6 inches wide, and assays 6 dwts. 6 grains. The 230 south has been driven 11 feet, total distance 272 feet 6 inches. Lode 1 foot wide, assays 2 dwts, 12 grains. The 230 south rise has been put up 9 feet 9 inches, total height 71 feet 3 inches, and has communicated with the 160 level south. The lode in the stope in the back of the 160 north is 4 feet 6 inches wide, and assays 7 dwts. 12 grains. The 160 south has been driven 6 feet 9 inches, total distance 444 feet 9 inches. The lode 1 foot 6 inches wide, assays a trace of gold. The 95 north has been driven 3 feet 3 inches, total distance 16 feet 3 inches from the top of the rise. Lode 3 inches wide, assays 2 dwts. 12 grains.—North shaft has been sunk 3 feet 6 inches, total depth below the 600 feet level 44 feet. Lode 3 feet wide, assays 6 dwts. 6 grains.—New shaft has been sunk 11 feet, total depth below surface 81 feet.—Main shaft. The 1160 feet level north has been driven 6 feet 3 inches, total distance 25 feet 6 inches. Lode of no assay value. Driving the 1160 south has been suspended.—The 1080 north has been driven 11 feet 3 inches, total distance 384 feet. The lode 4 feet wide, assays 5 dwts. The 1080 north winze has been sunk 7 feet 6 inches, total depth 31 feet 6 inches. Lode 5 feet wide, assays 1 ounce 1 dwt. 6 grains. The 1080 north rise has been put up 10 feet 6 inches, total height 81 feet. A crosscut is now being driven westward from the top of the rise for the purpose of effecting a communication with the 1000 feet level. In the 920 north back stope the lode is 5 feet wide, assaying 8 dwts. 18 grains. The lode in the 920 south back stope is 6 feet wide, assaying 7 dwts. 12 grains. In the stope in the back of the 840 south the lode is 6 feet wide, assaying 7 dwts. 12 grains. The 680 north has been driven 13 feet 3 inches, total distance 559 feet. Lode of no assay value. The 520 north has been driven 22 feet 6 inches, total distance 457 feet. The 370 north has been driven 10 feet 3 inches, total distance 166 feet. Lode of no assay value.—Taylor's shaft. The 1240 north has been driven 13 feet 6 inches, total distance 251 feet 6 inches. Lode of no assay value. In the level south a crosscut east, at 200 feet from the shaft, has been commenced, and has been put out 10 feet 6 inches. No further portion of the lode has yet been met with. The 1160 north winze has been sunk 11 feet 9 inches, total depth 32 feet Lode 1 foot 6 inches wide, assays 2 dwts. 12 grains. In two stopes in the back of the 1000 north the lode averages 3 feet in width and 4 dwts. 16 grains in assay value. In the stope in the back of the 920 north the lode is 2 feet inches wide, assaying 5 dwts. 15 grains. The 840 south rise has been put up 7 feet, total height 16 feet 9 inches. Lode 6 inches wide, assays 5 dwts. In two stopes in the back of the 840 north the lode averages 2 feet 9 inches in width and 12 dwts. 12 grains in assay value. In the 600 north back stope the lode is 3 feet wide, assaying 11 dwts. 6 grains. The lode in the 520 north bottom stope is 3 feet wide, and assays 1 ounce of gold per ton. In the stope in the back of the 520 north the lode is 3 feet wide, and assays 8 dwts. 18 grains, and in the 230 south back stope it is 2 feet 6 inches wide, assaying 10 dwts.—Old mill samples. Pulp 1 ounce 1 dwt. 6 grains. Tailings 3 dwts. 3 grains.—New mill samples. Pulp 1 ounce 10 dwts. Tailings 4 dwts. 18 grains.

BREMNAES.—The following report has been received from the manager, Mr. Daw, dated April 2: Risvig Mine: 400 feet level north. Communication was made yesterday in the end of this level with the winze sunk from the level above, and to-day we began to stope on the section of ground thus opened. The quartz varies from 10 to 15 inches in width, and has a mill value of between 5 and 6 dwts. to the ton.—300 feet level north. The lode is nearly 5 feet wide, showing strings of quartz. In the rise and stope cut through by this level the quartz is 10 inches wide of good quality.—200 feet level south. Here the lode is entirely squeezed out, but we have good reason to believe that it will soon resume its productiveness again. In the level above the 100 feet level the quartz is 20 inches wide, having a mill value of about 3 dwts. to the ton. We believe the value for gold will soon improve. Other places no alteration.—Gapleskog. The lode in bottom level is 4 feet 6 inches wide, carrying 8 inches of quartz which mills about 7 dwts. In the new stope the quartz is 10 inches wide of same value, while the old stope shows no alteration.—Fladenaes. There is no improvement in the sink, but as the walls are intact we hope a change will soon take place. We have nine men sinking and six driving the level from main shaft so as to hasten the connection.—Surface. We are milling the accumulated quartz from Fladenaes, also from Risvig, and judging from the amalgam taken from the plates we think the present crushing will show an improvement on the last.

CROWN UNITED.—The following is from the manager at the mine, dated February 29:—Since my last report the main tunnel has been extended a further distance of 53 feet, making total distance 510 feet. I have 30 feet more to drive to get under the first workings, which I reckon to have complete by March 4. I will then start to put up the rise to get a connection, which I expect to have complete in about three weeks from date. Water shaft is now down 110 feet, having been sunk 10 feet the last week. Progress here is rather slow on account of the ground being so bad; it is very rotten, and we cannot rush it, but at the present rate of progress we shall be down the required depth in about four or five weeks' time. There are about 500 tons of quartz on hand all ready for the battery, which I think will crush very well indeed, and there will be no difficulty in keeping the battery going when once we start. As soon as the machinery arrives I will make every effort to place it in position.—John Lapham, manager.

TRUE BLUE (Hannan's).—Mine manager's report for the fortnight ending March 3:—No. 1 main shaft. The shaft has been centred and double whip gear erected, and winding with new gear commenced. The north-east crosscut has been extended a further distance of 15½ feet, total driven from shaft 84 feet. The south-west crosscut has been extended 35½ feet, total from shaft 75 feet.—Intermediate level, underlie shaft. The winze below the level has been sunk to a depth of 38 feet. The vein will average 10 inches in thickness, and has improved in quality in the sinking, as per assay report and sketch plans. Shaft A has been sunk a further depth of 18 feet, total from brace 60 feet.—Jubilee section, Jubilee shaft. The south-west crosscut has been extended 14 feet, total driven in this direction 32 feet.—Shaft B. The south drive has been extended 45 feet since the last report, total driven from crosscut 85 feet. The last 40 feet of driving has passed through a similar class of country to that driven at the 50 feet level in the Jubilee shaft; stringers in broken formation, and carrying only a trace of gold. I have in consequence suspended all work in the end, and put the men in the north drive to complete their contract. In the event of the prospects not improving during the progress of this contract, I shall suspend all work on the lode at this level, and start the men crosscutting north-east from this shaft to ascertain if a lode formation exists between this point and point A marked in sketch plan, which is the western boundary of the True Blue section of property.—General. 166 feet lineal of exploratory work has been accomplished. The ground in each of the crosscuts continues of a favourable character for carrying gold-bearing lodes. The best pannings from the formation in winze give only a trace of gold. The double-action whip, which is the first of its kind erected on these fields, enables me to clear the crosscuts of mullock with great speed. I hope during the next fortnight to finish with all surface windlass work.

YERRAKONDA.—Fortnighly report of Captain M. Scantlebury, mine agent, dated March 18: South shaft. The 255 feet level south has been extended 22 feet 6 inches, now 97 feet 6 inches from shaft. The lode is 6 feet wide, composed of dark blue quartz, assaying 6 dwts. 8 grains of gold to the ton. The lode looks very promising. The 255 feet level north has been extended 25 feet 6 inches, now 98 feet from shaft. The lode is still in a disturbed state. We have removed this drill to cut out the lode behind the 255 feet level south preparatory to sinking a winze below this level.—Trial shaft north-east of Beresford's. This has been sunk 26 feet, now 52 feet from surface. The lode is 3 feet wide, 1 foot 6 inches of which is quartz, assaying 6 dwts. of gold to the ton.

DURBAN-ROODEPOORT. — The operations during February resulted as follows: Tons milled. Block 2, south reef, 6400 tons; block 1, main reef, 1195 tons; block 1, south reef, 410 tons; total 8005 tons, producing 3800 ounces. Tailings treated, 4960 tons, producing 1482 ounces; total, 5282 ounces.—Block No. 1. 360 feet level east drive, main reef, was driven 19 feet 6 inches.—Block No. 2. 6th level, south leader, east winze, 47 feet; 7th level, south leader, east rise, 15 feet; 7th level, south leader, west drive, 13 feet 6 inches; below 7th level, south leader, east drive, 9 feet 6 inches; below 7th level, south leader, west drive, 13 feet 6 inches; 8th level, south leader, west of shaft, 6 feet 6 inches; 8th level, south leader, east of shaft, 40 feet; 8th level, south leader, west of east winze, 15 feet; 8th level, south leader, east of east winze, 4 feet; total, 102 feet.

HANNAN'S NAPIER.—The following report has been received from the manager at the mine, Kalgoorlie, W.A., February 29:—Report of progress for the fortnight ending 27th inst.: C shaft north crosscut extended 30 feet, total from shaft of 55 feet, the face being now in decomposed country rock. Since passing through gold-bearing formation a number of small leaders of quarts dipping north has been passed through. These all carry a little fine gold. Have started to crosscut east from C shaft. This is now in 5 feet. This crosscut should intercept the Maritana lode, and I expect some important developments after we have got in a sufficient distance from the shaft. B shaft south crosscut driven 4 feet from shaft, making a total of 22 feet. The face being in hard blue rock, with barren quartz, I have stopped this end, and have the men working on the east crosscut from C shaft. A shaft south crosscut has been extended 32 feet, total from shaft being 35 feet. We passed through a quartz reef 3 inches in width, and running east and west. Underlaying a little to the south. It is poor, carrying only a little fine gold. In the event of the ground continuing as at present, I hope to complete the connection between the three shafts during the coming fortnight, and as this will give splendid ventilation I shall be enabled to open out at any desired point.—(Signed) Robert Gibson.

CHAFFERS.—Fortnightly report from Messrs. Bowes-Scott and Co., resident engineers, No. 1 shaft. The crosscut east from this shaft has been extended 6 feet, making a total of 81 feet from the shaft. The ground continues hard.—No. 4 shaft. The crosscut west from this shaft has been extended 12 feet. Total 40 feet 6 inches from the shaft. The country passed through consists of micaceous clay intermixed with ironstone.

GREAT BOULDER MAIN REEF.—Work done for fortnight ending February 29: West shaft 70 feet level. South drive extended 25 feet on course of main lode. Total length of drive from east crosscut 172 feet. Lode looking much better than last report, carrying fine gold and visible gold in places, stone making stronger in bottom of drive. East shaft 70 feet level. Resumed work in crosscut going east from above shaft, drove 26 feet, cut several small leaders, some carrying little gold. Total length of crosscut 43 feet.—Main shaft. Sunk 7 feet, total depth 11 feet, cut diorite close to surface. I consulted Mr. Furman on the matter and he instructed me to suspend work here for the present.—West shaft 70 feet level. Cut winze plat about 5 feet from west boundary in west crosscut; men now engaged timbering same; will start to sink on lode formation next week.—Surface work. Two men engaged four days making windlass and stands for main shaft and winze.—(Signed) J. March, mine manager.

MEYER AND CHARLTON.—Report for the month of February: Mine. Number of feet driven, sunk, and risen, 321 feet; ore opened up by development, 7066 tons; quartz mined, 6663 tons.—Mill. Number of days (24 hours) working 60 stamps, 27 days; ore crushed, 6663 tons; yield in smelted gold, 2219 ounces 12 dwts.; yield per ton, 6 dwts. 15·898 grains.—Cyanide works. Tailings treated, 4995 tons; yield in bullion, 789 ounces 5 dwts. 12·120 grains; yield per ton treated, 3 dwts. 3·848 grains; working cost per ton treated, 3s. 8·120d.—Expenditure and revenue. Working expenditure. To mining (including maintenance), £3761 17s. 10d.; transport, £73 6s.; milling (including maintenance), £1434 9s. 7d.; cyanide works ditto, £967 11s. 7d.; general charges, £907 16s. 9d.; mine development account, £999 9s; profit for month, £2429 8s.; total, £10,573 18s. 3d.—Revenue. By gold accounts. 2219·600 ounces from 60 stamp mill at 73s. 6d. per ounce, £8157 0s. 7d.; 789·294 ounces from cyanide works, at 60s. per ounce, £2367 17s. 8d.; rents, £49; total, £10,573 18s. 3d. — Working costs. Mining expenses, 10s. 5·661d. per ton; transport, 2·640d. per ton; milling, 3s. 4·384d. per ton; cyanide works, 2s. 9·075d. per ton; general charges, 2s. 8·699d. per ton; maintenance (mine, mill, and cyanide works), 1s. 10·905d. per ton; mine development, 3s. 0·000d. per ton; total working costs, £1 4s. 5·364d. per ton; value of yield, £1 11s. 7·105d. per ton; profit, 7s. 1·741d. per ton.—Expenditure on capital account, Machinery, plant, buildings, &c., £3241 5s.; main incline shaft, £282 17s. 4d.; total, £3524 2s. 4d.—Crushed during the month. Main reef, 1726 tons; south reef, 4331 tons; leader reef, 606 tons. The amount of the indebtedness of the company was not stated in my reference to the same at the annual general meeting, held on February 28. The liabilities amount to about £20,000, not £55,000, as might at first sight appear on reading the report of the proceedings at the meeting. As the heavy capital outlay for new works, &c., will shortly come to an end this indebtedness will be rapidly liquidated.—George Albu, managing director.

CRIPPLE CREEK, COLORADO.

(BY OUR OWN CORRESPONDENT.)

WITHIN the past few weeks the writer has received several letters from England, of which the following is a sample:—"We have enquiries for mining properties in Cripple Creek, our clients wishing to buy for cash up to $50,000 in each case. If you can send us any proved claims, or partly developed or worked mines, we will be glad to negotiate with you. We must have an option on any property sent us, for a sufficient length of time to enable us to conduct the negotiations. Particulars sent should be as full as possible."

The following are the facts of the present situation as to Cripple Creek:—

No owner of property of merit, such as would bear the strictest investigation, and could, therefore, be recommended, will give an option affording the necessary time for its being submitted by mail to London, there considered, an expert sent out, his report awaited in London, and a decision finally arrived at, involving altogether a period of two or three months. No property worth consideration can be held even for a limited period without a substantial cash deposit.

The owner of a really meritorious property willing to take a reasonable price does not have to wait a week, as there is an increasing stream of capitalists, practical mining men and others, from every part of the United States and beyond the sea coming to Colorado with the necessary money at immediate command, to purchase anything good on the spot.

Generally speaking, at the present time, nothing of real merit as to present or prospective value and clear title in the Cripple Creek district can be obtained at such a price as a sensible man would give, looking to ore production for his profits. Several sales of claims to English operators have been recently reported in Colorado papers, and the alleged prices paid are either gross exaggerations, or the purchasers possess the kind of faith which is said to remove mountains.

If the object of a person in acquiring mining property is merely to use the magic name of Cripple Creek to conjure with, to secure a property irrespective of its probable value, organise a stock company, and by catering to the gambling propensity make his profits out of the stock unloaded on credulous and excitable people with more money than sense, that is another proposition altogether. That has already been done to a considerable extent by American operators, and it remains to be seen if there is still time for London operators to make similar "quick turns" before the "boom" side of Cripple Creek bursts, and the district settles down entirely to legitimate business as the leading gold-producer of Colorado, as at present it actually is.

A prominent and practical Cripple Creek mining man, who is developing his own claims with his own money, and has nothing to sell, informed the writer a few days ago that, in his opinion, the "boom" part may possibly last through the coming summer, that the owners of questionable and indifferent property hope to unload at fancy prices during the "boom," after which the district will become staid and conservative like Gilpin, Clear Creek, Boulder, Leadville, and other places where *bona fide* mining on a business basis is practically the one industry, and mere mining in offices and on paper is discountenanced.

As a matter of fact, there are in Cripple Creek dozens of good ore-shipping, profit-making mines; there are scores of partially-developed properties, which, by capital and good management, will be developed into ore-shipping, profit-making mines. Many of these properties belong to stock companies managed by thoroughly competent and honourable business men. But there are hundreds of properties and companies trading on the name and fame of Cripple Creek, which, for a variety of reasons, will never amount to anything, and this is naturally the class of property most easily obtainable by those outsiders whose minds have been more or less affected by the Cripple Creek "boom." The people interested in this class of property are naturally the people who foster the mistaken idea that it is only necessary to sink anywhere in the district to find gold in paying quantities, that as a gamble every patented claim where no sign of gold exists is worth $5000, some say as high as $15,000. The real wheat of Cripple Creek will remain when this kind of chaff has blown away.

The "boom" part of Cripple Creek has received somewhat of a check since the New Year from the following causes.—The local supply of "lambs" got loaded up with cheap stocks of companies on paper a month or two before Christmas, and are still holding and likely to have to hold same. The Venezuelan war scare and the last bond issue tightened money in the Eastern States, and materially moderated the Eastern demand for Colorado mining stocks, which are very largely based on Cripple Creek properties. With very few exceptions, the most experienced and practical mining men of capital in Colorado have had, and are having, nothing to do either with the Cripple Creek "boom," or the Cripple Creek district, because they can, and do get, in over a dozen other localities better value for their money, in the shape of lower prices, better terms for leasing and bonding, less erratic, and, therefore, more continuous and reliable geological formations. Then, again, the former theory that gold at Cripple Creek was only found in a very circumscribed area is becoming more and more exploded, as development work demonstrates that such gold-bearing area probably extends in nearly all directions for a distance not yet determined, that there is no monopoly of it, and that the inflated prices asked by owners in what was considered the charmed Golden Circle, are merely keeping capital out of the district, and causing capitalists to investigate other districts with great satisfaction and encouragement. Furthermore, time is bringing reflection even to the people, who act like sheep and follow bell wethers, and they also are realising that there is the whole mountain region of Colorado, thousands of square miles in extent, to select from, with every possibility of duplicating, if not surpassing, Cripple Creek.

The present year in Colorado will far exceed the record of any previous year for *bona fide* mining activity. The books of the leading smelting concerns already show an increase in ore receipts as compared with the corresponding period of last year. Ore treatment plants are on the increase in various localities throughout the State. Prominent business men in all lines long resident in the State, and, therefore, with exceptional means of forming sound judgment, are furnishing large sums of their own money for mining enterprises. The mountains are increasingly covered with prospectors, and new districts of evident merit are now receiving deserved attention from practical people who prefer to steer clear of Cripple Creek under present conditions.

So soon as the disappearance of snow permits, probably within the next two weeks, the writer has arranged to explore a new gold belt, 65 miles long, and from 2 to 25 miles wide, altitude from 7000 to 11,000 feet, in Gunnison County, and only 200 miles from Denver, the scattered developments in which district, though all done within the last two years are of the most encouraging character. The information gained during such tour will be sent to *The Mining Journal* as an illustration of various undeveloped districts of undoubted merit, where the judicious investment of a given sum would be infinitely more profitable than paying an inflated price for chances in the Cripple Creek lottery. THOMAS TONGE.

APPOINTMENT OF PROFESSOR OF MINING AT KIMBERLEY.—Dr. Muir, acting as head of the Education Office at Cape Town, has appointed Mr. James G. Lawn, of London, to the Professorship of Mining in the College at Kimberley, the salary being £800 a year. Mr. Lawn has acted for some time as chief assistant to Professor Le Neve Foster, of the Royal College of Science. He is a young man, and has had a brilliant career as a scholar. He was one of three selected for the post by Professor Jamieson, of the West of Scotland Technical College.

METAL CIRCULARS.

MESSRS. JAMES LEWIS AND SONS monthly report on ores and metals, dated Liverpool, April 1, states: Copper. The good effect of exceptionally large deliveries of good merchantable copper from the stock has been neutralised by the large shipments from the United States to Europe, and by the unsettled state of European politics and of American finance. While the absorption of copper by Europe is extraordinary, the consumption in the United States so far shows only a moderate increase on that of last year, while the production has increased considerably. As 325 tons of Chili bars have been shipped from here to New York, and it is stated that a further quantity is being shipped from Havre, it would appear that the large quantity of copper exported from the United States had left American consumers short of supplies. From £16 1s. 3d. for cash on the 3rd ult., good merchantable copper fell to £14 5s. on the 12th, recovered to £15 16s. 3d. on the 16th, when the large decrease in the stocks was known. The advance inducing realisations, a fall to £15 on the 18th ensued, from which there was a reaction to £15 18s. 9d. on the 25th, followed by another fall to £14 12s. 6d. on the 27th. Values have since improved, and the closing value to day is £15, stocks again showing a large reduction. As a result of the reduced stocks, the quantity of cash copper on the market is very limited, and the premium for three months' prompt is reduced to 5s. per ton. Lower prices on this side caused a fall in the New York quotation for Lake copper, from 11¼ c. to 11 cents, and this in turn led to a further fall here, which was reflected in a further decline in New York to 10¾ cents." The Daily Metal Market report of the 19th ult. states that: "On the New York Metal Exchange, where quotations on copper are made simply for the effect which they may have upon the outside market, offers were made to sell copper for July delivery as low as 10·85 cents." As an instance of the quantity of copper required for the transmission of power by electricity, it is stated that in the long distance plants installed by the General Electric Company in the United States during 1895 over 1200 miles of copper wire was used, representing about 600 tons of copper. The annual report of the Kearsarge Mining Company, of Lake Superior, for 1895, gives the total production of copper as 973 tons (2000 lbs.), the cost being 9·22 cents per pound. That of the Osceola Mining Company gives the total production as 3135 tons, at a cost of 8·75 cents. Receivers have been appointed for the Butte and Boston Company of Montana. In 1893 the production of this company was 10,229 tons. The $25 shares are now quoted $1¾. American shipments for the month are about 10,000 tons. Imports are 3801 tons, and deliveries 98 9 tons greater to date than during the same period last year. The total arrivals in England and France for the month have been 10,706 tons, and the deliveries 14,357 tons fine. Stocks have decreased 3651 tons, and the visible supply 3439 tons. The arrivals in England from Chili during the month have been 1523, and the deliveries 4757 tons fine, and from other countries 4146 and 4519 tons fine respectively. The arrivals here and in Swansea from the United States have been 1352 tons bars, 248 tons ingots, and 1152 tons matte, equal to about 2206 tons fine copper, in London 100 tons and in France 725 tons fine. The Chili charters for the month are advised as 2250 tons, and exchange 17¾d. Sales of furnace material reported are:—March 28, 200 tons matte American, to arrive at Liverpool, at 9s. 3d. per unit. March 31, 12 tons precipitate Spanish, to arrive at Liverpool, at 9s. 7¼d. per unit.

Quotations to-day are:—Chili bars and good merchantable copper, £15 for cash, and £15 5s. for three months' prompt, buyers. English best selected ingots, £49 10s. to £50, and tough cake £48 10s. to £49 per ton. 8s 10¼d. for ore of 20 per cent., and 9s. 3d. per unit for Chili regulus or American matte, free from silver.

Chili exports to March 31 are:—

	1891.	1892.	1893.	1894.	1895.	1896.
Exported to January 31	937	2,315	432	1,174	1,667	2,163
Loading on do.	519	—	598	167	—	—
Chartered to March 31...	3,467	3,443	3,573	3,431	2,831	3,878
	4,923	5,758	4,603	4,772	4,498	6,041 tons fine.

Gold 77s. 9½d. per ounce standard. Silver opened at 31⅜d., advanced to 31⅝d., and closes at 31¼d. per ounce standard. Quicksilver from second hands is quoted at £6 16s. 6d. per bottle. Sulphate of copper has sold at £18 to £18 5s. per ton. Lead £11 5s. per ton for English, soft Spanish £11 1s. 3d., rich in silver £11 7s. 6d. to £12 5s. per ton, ore of 70 per cent. £4 13s. 10d. per ton and fine silver value. Antimony steady at £30 per ton. Nickel offers at 1s. 1d. to 1s. 2d. per lb net. Tin is without change at £80 10s. for cash. Bank rate of discount remains at 2 per cent.

MESSRS. HARRINGTON and Co's copper report, dated Liverpool, April 1, says:—Chili charters for the second half of March are advised as 1700 tons, against 550 tons for the previous fortnight, making 2250 tons for the month. The total since December 31 last is 6050 tons, and the quantity same time last year was 4450 tons. Exchange 17¾d. Since our last the market for G.M.B.'s has been fairly active, about 13,000 tons changing hands at from £45 17s. 6d. cash and £46 3s. 9d. three months down to £44 11s. 3d. and £44 18s. 9d. respectively, closing to-day with buyers of cash at £45 and sellers of three months £45 6s. 3d. The price of Lake copper is nominally 10.75 cents per lb. The total stocks in Liverpool, Swansea, London, and Havre are 35,830 tons, against 37,875 tons on the 17th ult., showing a decrease of 2045 tons for the fortnight, which, with a decrease for the previous fortnight of 1606 tons, makes a decrease for the month of 3651 tons. The stocks include about 1100 tons of copper sold, but not yet delivered to smelters. The visible supply for the fortnight is 40,054 tons, against 41,056 tons on the 17th ult., showing a decrease of 1002 tons. The month's figures show a decrease of 3439. Refined and manufactured sorts are steady. Quotations being:—Tough cake £48 10s. to £49, best select £49 10s. to £50, Indian sheet £53, strong sheets £56, and yellow metal sheets 45½d. per lb. The sales of furnace material comprise 135 tons argentiferous and auriferous Mexican matte on private terms, 200 tons American matte at 9s. 3d., and 12 tons Spanish precipitate at 9s. 7¼d. per unit.

	Tons fine.		Tons fine.
Import of Chili copper during the past fortnight	581	against	783 same time last year.
Delivery of Chili copper during the past fortnight	2,553	,,	212 ,, ,,
Import of other copper during the past fortnight	2,321	,,	1,334 ,, ,,
Delivery of other copper during the past fortnight	2,673	,,	1,808 ,, ,,

The total imports of Chili and other copper into Liverpool and Swansea since January 1 have been 19,095 tons; deliveries during the same period 26,328 tons fine; for the same time last year the figures were 15,261 and 16,309 respectively.

Quotations are:	To-day	March 17, 1896.
Chili bars	£45 0s. 0d. cash and £45 6s. 3d. 3 months	£45 7s. 6d. cash and £45 15s. 0d. 3 months
,, Ore	8s. 3d. to 8s. 9d.	8s. 3d. to 8s. 9d.
,, Regulus or matte	9s. 0d. to 9s. 3d.	9s. 0d. to 9s. 3d.
Precipitate	9s. 3d. to 9s. 6d.	9s. 3d. to 9s. 6d.
	April 2, 1895.	April 2, 1894.
Chili bars	£39 10s. 0d. cash and £39 17s. 6d. 3 months	£40 12s. 6d. cash and £41 5s. 0d. 3 months
,, Ore	7s. 9d. to 7s. 6d.	7s. 0s. to 7s. 6d.
,, Regulus or matte	7s. 6d. to 8s. 0d.	8s. 0s. to 8s. 3d.
Precipitate	8s. 3d.	8s. 3d. to 8s. 6d.

Arrivals here during the fortnight of West Coast, S.A., produce:—

	Ores.	Regulus.	Bars.	Ingots.
Cuvour (s.) from Valparaiso	64	—	100	—
Potosi (s.) ,, ,,	—	—	368	50
Spirit of the Morning, from Valparaiso	—	—	—	30
	64	—	468	80

At Swansea—*Nil*.

Stocks of copper (Chilian and Bolivian) in first and second hands, likely to be available, we estimate at—

	Ores.	Regulus.	Bars.	Ingots.
Liverpool	10	—	29,685	171
Swansea	—	—	323	—
	10	—	30,008	171

	Tons.			Price of Cash Bars.
Representing about	30,181	fine copper against	32,273 tons Mar. 17, 1896,	£15 7 6
against ,,	38,683	,, ,,	April 2, 1895	39 10 0
,, ,,	31,183	,, ,,	April 2, 1894	40 12 6
,, ,,	30,300	,, ,,	April 5, 1893	45 3 9

	Tons fine.		Tons.
Stock of other copper contained in matte, foreign ore and Spanish precipitate	3271	against	2123 Mar. 17, 1896. 5078 April 2, 1895.
Stock of Chili bars, ingots, and barils in Havre, including Rouen and Dunkirk	786	,,	270 ,,
Stock of copper other than Chili in Havre and Dunkirk	1701	,,	633 ,,
Stock of Chili copper afloat and chartered for to date	3124	,,	2501 ,,
Stock of foreign copper in London	889	,,	5021 ,,

Tin.—Since our last the market for cash Straits has fluctuated between £80 12s. 6d. and £80, closing to-day at £80 10s., Australian £81 5s., English £84 10s., and Peruvian £48 to £59, according to quality.—Sulphate of copper. Makers are firm at £19 10s. to £20 spot and forward, but there are some second-hand lots available at £18 10s. to £19, June-July easier at about £17. Lead during the past fortnight has been quiet, and closes dull at £11 1s. 3d. for Spanish, and £11 5s. for English.—Spelter. The market since our last has been firmer, and closes firm at £15 10s. for ordinary Silesian brands.—Quicksilver. Since our last the market has been quiet at £6 16s. 6d. per bottle for Spanish.—Bar silver. Prices have fluctuated between 31⅝d. and 31¼d. per ounce standard, closing to day at the lowest. Antimony steady. Star regulus at £30 per ton. Ore irregular, about £7 to £8 for 50 per cent. good quality and produce.—Bank rate of discount. The rate has remained at 2 per cent. since Feb. 22, 1891.

MESSRS. HENRY BATH and SON'S copper report, dated April 2, has the following:—The Chili charters for the last half of March are advised as 1700 tons, making 2250 tons for the whole month. The latest Exchange is 17⅝d. The market after dropping to £45 cash by the 18th ultimo, began to pull up on the good deliveries being made at Liverpool until £45 16s. 3d. was reached on the 25th ultimo. The following day on the decline in the New York price and the unfavourable news from South Africa, the price went down about 10s., a similar drop being registered on the next day. On the 30th forward copper was pressed for sale in various quarters and £44 12s. 9d. was accepted, cash parcels, however, fetching £44 13s. 9d. There has been a general advance since and we closed last night buyers of cash at £45. This morning a moderate business was done at £45 1s. 3d. cash, £45 2s. 3d. forward, with buyers over of the former, the market remaining closed until Tuesday next, the 7th instant, for the Easter holidays. Consumption is still very good, and in spite of the very heavy shipments from the United States we would draw attention to the large reduction in both the stocks and the visible supply. The price of Lake copper in New York is now 10·75 cents per lb. nominal. The shipments for the past month were 10,843 tons. The arrivals and deliveries at Hamburg, Rotterdam, and Antwerp during the past fortnight amount to about 3718 tons. The imports of American copper into England have been 1537 tons, and into France 633 tons or 2157 tons against 1465 tons last year. Total actual deliveries for the fortnight have been 9039 tons against 6994 tons imports. The stocks have decreased 2045 tons. Total visible supply shows 40,080 tons against 41,075 tons last fortnight. There have been no transactions in furnace material reported since our last.

England and France.	Imports.	D'liv'r's.	Stocks.	Afloat & Chartered for.	Total visible supply.
Chili copper at Liverpool, Swansea, and in France	561	2,736	30,969	3,150	34,119
Foreign copper in London, chiefly Australian and Japanese	740	973	889	1,100	1,989
American copper at Liverpool, London, and Swansea	1,537	1,609	578	—	578
Other copper at Liverpool & Swansea	1,359	1,139	1,493	—	1,493
American copper in France	620	420	1,367	—	1,367
Other copper in France	2,177	2,162	334	—	334
Tons fine copper during the fortnight	6,994	9,039	35,830	4,250	40,080
Against tons on March 17, 1896	3,712	5,313	37,875	3,200	41,075
Against tons on March 3, 1896	3,977	4,862	39,181	4,000	43,481

	1895.	1894.	1893.	1892.	1891.
Total visible supply, April 1	53,335	46,597	55,271	54,310	58,163
	1890.	1889.	1888.	1887.	
Total visible supply, April 1	91,982	124,80[illegible]	56,836	57,033	

Price of Chili bars same date—£39 12s. 6d., £41, £45 5s., £46 5s., £52 17s. 6d., £48 7s. 8d., £40 2s. 6d., £80 3s. 9d., £39 12s. 6d.

	1896. Tons fine.	1895. Tons fine.	1894. Tons fine.	1893. Tons fine.	1892. Tons fine.
Imports from Chili and Bolivia from January 1 to date	4,838	4,321	5,050	4,250	4,749
Imports from America from January 1 to date	11,121	10,857	9,605	8,149	7,1[illegible]4
	1891.	1890.	1889.	1888.	1887.
Imports from Chili and Bolivia from January 1 to date	3,704	7,033	7,187	8,838	7,837
Imports from America from January 1 to date	9,186	6,069	8,747	10,214	1,271

The shipments to Europe from America from January 1 to date are 27,464 tons as against 14,196 for corresponding period last year.

The shipments afloat from America are estimated at 5500 tons.

Imports.—The arrivals from the West Coast have been as follows:—

	Ores.	Regulus.	Bars.	Ingots.	Barilla.	
At Swansea—*Nil*.						
At Liverpool—						
Cuvour (s) from Valparaiso, &c.	64	—	100	—	—	
Potosi (s) ,,	—	—	368	50	—	
Spirit of the Morning ,,	—	—	—	30	—	
In France—*Nil*.						
Tons	64	—	468	80	—	= 561 tons Fine
Corresponding period of 1895	—	150	718	50	30	= 839 ,,
,, ,, 1894	1300	83	330	—	—	= 627 ,,
,, ,, 1893	750	—	151	—	—	= 301 ,,
,, ,, 1892	—	—	735	—	—	= 736 ,,

Stocks.—We estimate the present available quantities of West Coast copper to be:—

	Ores.	Regulus.	Bars.	Ingots.	Barilla.
At Swansea	—	—	323	—	—
Liverpool	10	—	29,685	171	—
In France	—	—	150	360	60
	10	—	30,188	731	60

Representing about 30,969 tons fine copper, against 33,144 tons on the 17th ult. against ,, 38,953 ,, April 1, 1895 ,, 31,850 ,, ,, 1894 ,, 35,583 ,, ,, 1893 ,, 34,147 ,, ,, 1892

Supply of West Coast copper may be estimated from the following figures:—

	Tons.	
Actual stocks at Swansea, Liverpool, and in France	30,969	
Afloat and chartered for at date of last advices per mail and cablegram	3,150	
Total	34,119	against 35,194 tons March 17, 1896.

against same date 1895, stock	38,953	afloat, &c. 2,500=41,553
1894,	31,850	,, 3,100=34,950
1893,	35,683	,, 4,300=39,983
1892,	34,147	,, 3,000=37,147

Quotations for West Coast copper are as follows:—

	To-day.	April 2, 1895.	April 3, 1894.	April 5, 1893.	April 2, 1892.
Ores } Regulus }	8/9 to 9/6	8/	7/7½	9/	8/10¼
Bars	£45 1/3	£39 12/6	£41	£45 5/	£48 5/
Ingots, Urneneta	Nom.	Nom.	£44	£49 15/	£50
Precipitate about	9/3 to 9/9	8/7½	8/4½	9/4½	9/3

For other descriptions we quote to-day:—Wallaroo, nominal; English tough, about £48 10s. to £49 10s.; Burra Burra, nominal: English manufactured, about £56; best selected, about £49 10s. to £50; Indis sheets, about £53; G.M.B. copper, £45 1s. 3d. cash and £45 6s. 3d. three months.—Sulphate of copper. Quotations a little easier at £18 to £19 cash and forward.—Tin quiet, closing at £80 7s. 6d. cash, £81 three months.—Spelter about £15 10s.; English about £16 5s.; blende of 55 per cent. is worth about £3, and calamine about £3 2s. 6d.—Lead about £11; with silver, 50 to 80 ounces, about £11 5s. to £11 10s.; lead ore of 70 per cent. is worth about £5 per ton.—Pig iron, Closing quotations for Scotch pigs are 48s. 8d.; Middlesborough, 38s. 3½d.; hematite, 48s. 2½d. cash.—Antimony quiet; star regulus about £30; ore, £8 for 50 per cent. good quality and produce; crude about £.4 per ton.—Quicksilver. The official price is £8 17s. 6d.; sellers, 1s. 6d. less.—Bar silver, 31½d. per ounce standard.—Discount. The Bank rate remains at 2 per cent.

TIN TICKETING.

THE fortnightly ticketing for tin ores was held at Tabb's Hotel, Redruth, on Tuesday. Result:—

VALUES OF ORES SOLD FROM EACH MINE.

Mines	Tons	cwts.	Per ton. £	s.	d.	Value. £	s.	d.
Dolcoath No. 1	14	0	37	5	0	521	10	0
do No. 1a	14	0	36	17	6	516	5	0
do No. 1b	12	0	36	12	6	439	10	0
Wheal Grenville A	15	0	38	10	0	577	10	0
do B	15	0	38	2	6	571	17	6
East Pool A	14	0	28	2	6	393	15	0
do B	13	0	27	10	0	357	10	0
do No 2	1	10	11	12	6	17	8	9
Tincroft	11	0	31	17	6	350	12	6
do	10	0	31	17	6	318	15	0
do	2	0	11	12	6	23	5	0
Basset Mines No. 1	9	0	38	15	0	348	15	0
do No. 1a	8	0	39	0	0	312	0	0
do No. 2	4	10	26	5	0	118	2	6
Carn Brea No. 1	8	0	32	12	6	261	0	0
do No. 1a	8	0	32	17	6	263	0	0
do No. 2	1	0	21	0	0	21	0	0
Killifreth	14	0	37	0	0	518	0	0
West Kitty	13	0	38	15	0	503	15	0
Phœnix United No. 1	9	0	37	2	6	334	2	6
do No. 2	2	10	32	7	6	80	18	9
West Frances	9	0	33	17	6	304	17	6
South Condurrow	7	0	38	7	6	268	12	6
	214	10				£7422	2	6

AVERAGE PRICE PER TON, £35 12s. 0d.

AVERAGE PRICES PER TON.

February 11	£35	11	11
February 25	35	15	8
March 10	35	5	10
March 24	£35	4	1
April 8	34	12	0

WE are requested to state that certificates in regard to all transfers lodged up to March 1, 1896, are now ready for delivery at 15 and 16, George-street, Mansion House, E.C., in the following companies:—Black Reef Proprietary Company (Limited), Knight Central (Limited), Bultfontein Star Diamond Mining Company (Limited), Main Reef Gold Mining Company (Limited), Marievale Nigel Gold Mines and Estate (Limited), Bantjes Consolidated Mines (Limited), Rietkuil Gold Mines (Limited), Rand Central Ore Reduction Company (Limited), Johannesburg City and Suburban Tramway Company (Limited), Treasury Gold Mines (Limited), Vogelstruis Consolidated Deep (Limited), West Rand Mines (Limited), Standard Diamond Mining Company (Limited).

PROVINCIAL SHARE MARKETS.

THE CORNISH MINE SHARE MARKET.

Mr. MICHAEL WILLIAMS BAWDEN, Mining and Assaying Offices, Liskeard, Cornwall, writes (April 9):—The usual quietude has pervaded the market during the holidays, and business almost suspended; but to-day there is some inquiry for shares at present low prices. Quotations:—Basset Mines (£1 paid), 1⅛ to 1¼; ditto (2s. 6d. paid), ½ to ⅝; Carn Brea, 8s. 6d. to 10s.; Devon Consols, 1 to 1⅛; Dolcoath (£1 paid), 16s. to 16s. 6d.; ditto (5s. paid), 4s. to 5s.; East Pool, 2⅜ to 2½; Killifreth, 6s. 6d. to 7s.; Levant, 4⅛ to 4¼; Polberro, 10s. to 11s. 6d.; Tincroft, 16s. to 17s. 6d.; West Kitty, 2⅜ to 2½; Wheal Grenville, 6¾ to 7; Wheal Kitty, 5s. to 6s.; Wheal Metal, 3s. 6d. to 4s.

Messrs. ABBOTT AND WICKETT, Stock and Share Brokers and Mining Share Dealers, Redruth, write under date of April 9:—Very little business doing this week, and at the moment there is no disposition to buy or sell. Dolcoaths are about 15s. for the fully-paid shares; the partly paid are nominally 4s. Quotations herewith:—Blue Hills, 1s. to 2s.; Basset Mines, 1 to 1¼; Carn Brea, ½ to ⅝; Dolcoath (fully paid), 14s. 6d. to 15s. 6d.; ditto (5s. paid), 3s. 6d. to 4s. 6d.; East Pool, 2½ to 3; Killifreth, 6s. to 7s.; Polberro, ½ to ¾; South Crofty, ⅛ to ¼; Tincroft, ½ to 1; West Kitty, 2⅛ to 2⅜; Wheal Grenville, 6 to 6½; Wheal Kitty, ⅛ to ¼; Wheal Metal (3s. paid), 3s. 6d. to 4s. Tin, 60⅛.

MANCHESTER.

Messrs. JOSEPH R. and W. P BAINES, Stock and Share Brokers, Queen's Chambers, 7, Market-street, write, April 9 (noon):—Although last week we wrote a day earlier than usual, we can hardly consider Thursday last in the period we have now to notice, as Thursday was just in front of the holidays, and there was no disposition to enter into new business before the long Easter holiday. We need not go into details this week, but content ourselves with giving the changes in full, rails and others alike. We may premise that all home rails are better, some of them very distinctly so. Canadians a bit contradictory, but advances in majority. Americans, though changed in New York, whilst markets on this side were closed, show but little variation from prices of last week. Changes in full as follows, rails included:—

ENGLISH RAILWAYS.—Higher: Caledonian, 2; ditto Deferred, ½; Great Eastern, 1½; Great Northern A, 2; Great Western, 1⅛; Lancashire and Yorkshire, ¾; London, Brighton, and South Coast Deferred, 1⅜; London, Chatham, and Dover, ⅛; London and North Western, 1½; Sheffield Deferred, 1; Metropolitan District, ½; Midland, 2; North British New Ordinary, ½; North Eastern Consols, 3½; South Eastern Deferred, 1.

CANADIAN, AMERICAN, AND FOREIGN.—Higher: Canadian Pacific, $3½; Grand Trunk of Canada, $⅝; ditto Guaranteed, $1½; ditto First Preference, $1; ditto Second Preference, $⅜ to $½; ditto Third Preference, $½; Central Pacific, $1; Chicago, Milwaukee, and St. Paul, $⅛; Denver and Rio Grande Preference, $½; Philadelphia and Reading Ordinary, $½; Union Pacific, $1; New York, Pennsylvania, and Ohio First Mortgage, $½.—Lower: Mexican rails, $½; ditto First Preference, $½; Louisville and Nashville $½; New York Central, $½; Erie, $½; Ontario, $⅛; Norfolk and Western Preference, ½.

CONSOLS.—Higher: Two and Three-quarter per Cent., 5-16.

COLONIAL STOCKS, &C.—Higher: New Zealand Inscribed, ½.

CORPORATION STOCKS AND DEBENTURES.—Higher: Blackburn Four per Cent., 4 to 5; ditto Three per Cent, 2½; Bolton Three and a-Half per Cent., ½; Newcastle Three and a-Half per Cent., 3.

FOREIGNERS.—Higher: Argentine Six per Cent., 1½; Argentine Five per Cent. ½ to 1; Brazilian Four per Cent., ⅜; Egyptian Unified, ½; Italian Rente, ½; Mexican Six per Cent., ½; Portuguese Three per Cent., ⅛ to ¾; Russian Four per Cent, ½; Turk's D, ⅜; Uruguay Three and a-Half per Cent., 1½.—Lower: Spanish Four per Cent., ⅛.

BANKS.—Higher: Bank of Liverpool, ¼ to ½; Imperial Ottoman, ⅛ to ¼; Manchester and County, ¼; Parr's and Alliance, ¼; W. D. and Manchester and Salford, ¼.—Lower: Imperial of Persia, ⅛.

INSURANCE.—Higher: Boiler Insurance Steam Power, ¼; Liverpool, London, and Globe, ¼; Manchester Fire, ⅛ to ¼; Royal, ⅛.—Lower: Lancashire, ¼; Palatine, 1-16; Thames and Mersey, 1-16; Union Marine, 1-16.

COAL, IRON, &C.—Higher: Ashbury's, 2; R. Evans A, ⅛ to ¼.—Lower: Bolckow Vaughan (partly paid), ⅛; Rhymney New, 1s. to 2s.

TELEGRAPHS AND TELEPHONES.—Higher: Anglo-American Preference, ⅛; National Telephone 1st Preference, ⅛.

BREWERIES.—Higher: Bent's, ⅛; Taylor's Eagle, ⅛; Thelfall's, ⅛; ditto Preference, ⅛.

MISCELLANEOUS.—Higher: Coat's, ⅛; Earle's Shipbuilding, ⅛; Kellner Partington, ⅛; Manchester Carriage B, ⅛; Gas Light A, 3; Northern Assets, 1s. 6d.—Lower: Bovril, 1; Cunard Steam, ⅛; Manchester Trust, 6d.; Manchester Ship Canal Ordinary, 1-16 to ⅛; ditto Preference, 1-16.

LATER (4 P.M.)—Home rails again generally better, but do not in all cases maintain best prices touched. However, with traffics coming out as they have done and the extreme cheapness of money this department bids fair for further substantial rise. Americans have lost ground rather to-day, the declines ranging from $⅛ to $1. Canadians have not come in for much, if any, alteration, neither have Mexicans.

SCOTCH MINING AND INDUSTRIAL COMPANIES SHARE MARKETS.

STIRLING.—Mr. J. GRANT MACLEAN, Stockbroker and Ironbroker (April 9), writes:—Since last report (April 1) there has been little business doing, owing to the intervening Easter holidays, but prices have generally improved.

In shares of coal, iron, and steel companies prices are steady. The Marbella output for March has been 3591 tons. Steel Company B Debentures offered. Niddrie and Benhar are at 40s. 6d., and Stewart and Clydesdale 11.

In shares of copper concerns prices are slightly better. Arizona have sold from 46s. to 48s., Mason 61s. 6d., Tinto from 18¼ to 18 13-16, and Tharsis from 108s. to 109s. 6d.

In shares of gold and silver mines a fair amount of business has been done, and prices are generally higher, owing to the satisfactory crushing returns both from the Indian and South African mines. Chartered improved from 78s. 9d. to 87s. 6d., and are now about 83s. 9d. East Rand improved from 6⅞ to 6¾, and Randfontein from 56s. 9d. to 63s. 6d. De Beers, Consolidated Gold Fields, and other leading shares have also improved. Aurora West United are at 27s. 6d.; African Estates, 43s. 9d.; Anglo French Exploration, 97s. 6d.; Associated W.A., 43s. 9d.; African Recovery, 32s. 6d.; Afrikander, 25s.; Bayley's Reward, 5s. 6d.; Bonanza, 56s. 3d.; Broken Hill, 46s. 3d.; Consolidated W.A., 15s.; Croesus South, 25s.; Charterland, 15s.; Doornkop, 4s. 6d.; Emma, 2s. 3d.; Graskop, 5s. 6d.; Golden Arrow, 10s.; Gold Fields of Mozambique, 22s. 6d.; Gem of Cue, 2s. 9d.; Guadalcazar, 2s. 9d.; Hit or Miss, 30s.; Hauraki, 16s. 6d.; Hannan's Golden Group, 26s. 3d.; Hannan's Golden Treasure, 26s. 3d.; Hainault, 33s.; Hampton Gold Hill, 1s. 6d.; Joe's Reef, 6s. 3d.; Kathleen, 4s. 3d.; Londonderry Consols, 2s. 9d.; Leipaard's Vlei, 19s. 6d.; Lisbon, 7s. 6d.; Murchison New Chum, 9s.; Mashonaland Agency, 50s.; Ouro Preto, 22s. 6d.; Orion, 42s. 6d.; Orient, 9s. 6d.; Paddington Consols, 27s. 6d.; Rhodesian Mining and Finance, 17s. 6d.; Robinson Randfontein, 33s.; Rothery Block, 8s.; Rhodesian Exploration, 7½; Rhodesia (Limited), 22s. 6d.; St. Augustine, 10s. 3d.; South Londonderry, 2s. 3d.; Spes Bona, 8s. 9d.; Torva Exploring, 22s. 6d.: Violet, 13s. 9d.; Victory, 1s. 6d.; Wealth of Nations Extended, 26s. 3d.; and Wentworth, 24s.

In shares of miscellaneous companies there is not much alteration to notice. In oil companies Broxburn are at 10; Pumpherston, 7; and Young's 30s. 9d. Cheshire Alkali and Salt Preferred are at 27s. 6d. Nobel's Dynamite improved on dividend rumours from 15 5-16 to 16¼, and are now 15 15-16.

EDINBURGH.

Messrs. THOMAS MILLER and SONS, Stock and Share Brokers, 69, Hanover-street, Edinburgh, report as follows under date of April 9:—The home railway market since the holidays has shown a general improving tendency, and advances in ordinary stocks have taken place varying from ½ to 2½; London, Chatham, and Dover Second Preference has risen from 63 to 68; Canadians and Americans are not much changed. In insurance shares, Caledonian have advanced 27½ to 28½; English and Scottish Law Life from 12 7-16 to 12½; Liverpool, London, and Globe from 52½ to 52⅝; North British and Mercantile from 40⅜ to 40½; Thames and Mersey from 11⅛ to 11 11-16. In banks, Bank of Scotland have improved from 352 to 354; British Linen from 402 to 406. The stocks of some of the financial companies have been wanted at higher prices. Marbella Iron Ore have risen from 40s. 6d. to 43s.; Steels from 97s. to 99s.; Arizona Copper are 2s. 3d. higher at 48s. 3d.; Oakbank Oil 5s. higher at 6s.; Edinburgh United Breweries 7s. 6d. higher at 11⅛.; Noble Warrants 12s. 6d. higher at 16.

SOUTH AUSTRALIAN LETTER.

(FROM OUR OWN CORRESPONDENT.)

ADELAIDE, MARCH 4.

FURTHER developments and fresh discoveries are showing, beyond doubt, that South Australia is as well deserving of exploiting for gold as any other portion of this great Island Continent. In many places increased energy is being displayed in the search for the royal metal, and it is satisfactory to know that these renewed efforts are meeting with the success they deserve. It is no infrequent thing to see rich specimens brought in from some new discovery, or, perhaps, from some old mine that has been abandoned for years, but which has been taken up again by a few practical and energetic men with faith in the auriferous wealth of the colony.

The Blumberg and Mount Pleasant districts, comprising an area of about 80 square miles, are rich in gold, both reef and alluvial; the latter has been occasionally—not infrequently—found in considerable quantities, but recent discoveries show that the more permanent form of mining, working the reefs, is likely to be attended with great success. The want of sufficient capital to sink deep enough, and to provide requisite machinery, has always been the great drawback to gold mining in South Australia, but now we have a few of our mines yielding such good returns that no one need fear to venture investing in them. The Black Snake Mine, which has lately been taken up by an English company, whose manager has commenced operations, is by no means one of the rich mines of the district; nevertheless the area of land is considerable, and the auriferous lode fairly wide, and is estimated to yield an average return of 12 dwts. of gold per ton of veinstone, which should leave a substantial profit. Some 15 years ago a grand discovery of alluvial gold was made on a block of land not very far from the Black Snake, and known as Scott's Section. About £2000 worth of gold was dug out from an area of not more than 20 acres, and within a spade's depth of the surface. A company purchased the land—about 80 acres in all—and spent many hundreds of pounds, to say the least, in endeavouring to find a reef. In this they were unsuccessful, but within the past few months the reef has been discovered and has proved very rich. Just now about a hundred beautiful specimens from the depth of 35 feet in the shaft, where the lode is 4 feet wide, are being exhibited in Adelaide. The quartz is for the most part white, but of a very kindly nature for carrying gold, and is really thickly-studded with beautiful bright gold. Nothing superior has been shown from West Australia. This locality is about two miles from that mentioned, I think, in my last letter, where gold is being dollied out at the rate of over 6 ounces per ton, and fully as much left in the tailings. I have just been shown some fine specimens from Hamblin's Freehold on the old Barossa gold field. Other mines in that neighbourhood are also turning out well.

The Kirkeek's Treasure Mine, at Nillinghoo, is still looking well, and great hopes are entertained for its future. Two or three other mines in the north are being satisfactorily developed; but one in particular at Wadnaminga is turning out a quantity of magnificent specimens, such as few mines in West Australia can surpass. At the same time the average veinstone in this mine is very payable, being estimated as worth fully 2 ounces of gold per ton. The lode has been proved by the sinking of three shafts on the underlay, the deepest being 140 feet, and the thickness of the lode about 3 feet to 3 feet 6 inches.

MR. FRANCIS HART, of the West Australian Press Agency, Exchange Club Buildings, Perth, Western Australia, informs us that he is about to pay a visit to England, where he intends delivering a series of illustrated lectures in various parts of the United Kingdom on mining in Western Australia. Mr. Hart is eminently qualified for this; and, as he is acquainted with every gold field of the colony, no doubt his lectures wil be well attended by enthusiasts, and all who are interested in mining in this wonderfully promising country. It is also his intention to establish in London a West Australian bureau of information on the lines of that which he has conducted in Melbourne under Government auspices. Mr. Hart is the author of the official handbook to the colony, which was issued by the Government, whilst, in addition, he has written several pamphlets on the colony's resources. He has just returned from a lengthy tour around the Coolgardie gold mines, and as a result of his experience has contributed several articles of interest to various Australian papers. As a matter of fact, as a result of these articles he has been offered a membership of the Australian Institute of Mining Engineers and a fellowship of the Geological Society of Australasia. Mr. Hart's literary achievements, however, are not confined to treatises on the mineral resources of Western Australia. He has made an humble incursion into the domain of poetry as the author of the Australian National Anthem, "Unfurl the Flag," and other songs.

PACK'S EXPORT PURCHASE INDEX.—This is a useful publication, emanating from Messrs. W. E. Peck and Co., of New York, which is intended to serve as a general index to the manufactured articles of the United States which are suitable for exportation. The method observed in compiling the catalogue is a very good one. There is first an "article index," which refers the reader to the various sections of the book, in which each article is printed against the names of the chief manufacturers, and in many cases admirably illustrated by cuts. The intending purchaser in England is thus able in a moment to put his finger upon the most promising source whence to derive any article he may be in use of, and given a propensity on the part of the British public to purchase their steam engines and baby carriages in America, The index should be a very useful one.

GELDENHUIS ESTATE AND GOLD MINING COMPANY (LIMITED).—The next ordinary annual general meeting of the above-named company will be held at the offices of the company, Johannesburg, on Wednesday, May 13, 1896.

THE INSTITUTION OF MINING AND METALLURGY.—The sixth ordinary meeting of the fifth session will be held next Wednesday, in the Lecture Theatre of the Geological Museum, Jermyn-street, S.W., at eight o'clock, when the following paper will be read:—"Transmission of Power by Compressed Air at the North Star Mine, Grass Valley, California," by Mr. P. R. Robert (Member).

JOHANNESBURG NOTES.

By H. BUSH M.E.

NEW MIDAS ESTATE.

The 20 stamp battery is capable of treating nearly 2000 tons monthly, which should give close upon 4000 ounces, with probable profits equal to over £8000 per month. The amount of ore opened up exceeds 10,000 tons, with an average value of from 30 dwts. to 2 ounces per ton.

HEIDELBURG.

Properties in this district are coming very much into favour. Developments which are going on give prospects of highly remunerative returns, and it is now certain that the future of this district is assured.

WOLHUTER.

This mine is undoubtedly one of the best developed on the Rand, and the amount of ore in sight is considerable. Shares at their present figure are exceedingly cheap, and should be bought for an important rise.

BUFFELSKLOFF,

Good progress is being made on this property, and the reefs are being opened up in every direction with favourable results There is a good future in store for this mine.

BUFFELSDOORN.

Development shows very little improvement, and the extensive dyke matter is causing a great deal of difficulty. Work is suspended, and it will be some time before crushing is resumed. The prospects are anything but bright.

REITFONTEIN.

In the lower workings the reefs show considerable improvement, and have the appearance of more permanency than at any other time, and the other prospects are exceedingly good, as there are some very thick patches being met with. It is probable these shares will see another advance shortly.

JUMPERS.

The present price of shares is very low, when the value of this property is taken into consideration, and a purchase will bring in handsome profits.

WHITE ROSE.

As there seems to be a possibility of this property starting active operations, I strongly advise watching these shares. There is no question as to the value of the reefs, and in spite of all adverse criticism, when development goes ahead, the property will speak for itself. There are few reefs on the whole of the West Rand that will give such good results over the plates. The present price of shares is out of all reason, considering the amount of working capital to the credit of the company. Holders will do well by averaging their shares, as it is absolutely certain there must be an enhancement in their value before many weeks.

NEW ORION.

Prospecting to pick up the lost reef is going on actively, and indications are very favourable so far.

ROBINSON DIAMONDS.

The capital of this company is to be increased from £400,000 to £450,000. The new shares are to be offered to shareholders at 40s., the shares being guaranteed by Mr. J. B. Robinson and the other members of the board. In consideration of their guaranteeing the issue, they will have the right to call a further 50,000 shares at 40s. for 12 months, and for this purpose the capital will be further increased to £550,000. I strongly recommend leaving this business severely alone.

SHEBA.

The output from this mine more than maintains its high figure, but the public must not place too great a reliance in a continuance of the same, as there are rumours that the output will exhibit a falling off.

INDIAN MINES' OUTPUT FOR MARCH.

DURING last month the output of the mines in Mysore, was 25,470 ounces, showing a *decrease* of 2038 ounces as compared with the preceding month, and an *increase* of 5213 ounces as compared with the correspondig month of 1895. The production since the beginning of 1892 has been as follows:—

	1892. Ozs.	1893. Ozs.	1894. Ozs.	1895. Ozs.	1896. Ozs.
January ...	11,674	16,844	17,026	19,672	22,442
February ...	11,780	16,656	15,803	19,358	27,808
March	11,579	17,463	16,080	20,257	25,470
April.....	11,813	18,287	15,551	20,399	—
May	12,488	17,922	16,543	20,797	—
June	11,847	16,879	15,459	20,839	—
July	13,277	16,676	18,271	19,280	—
August	14,854	16,692	19,073	20,704	—
September	5,529	17,060	18,911	21,502	—
October ...	15,922	17,440	19,119	22,301	—
November	15,942	17,557	18,825	22,545	—
December	16,435	17,659	19,068	22,652	—
Total ...	163,140	207,135	209,729	250,306	75,720

The outputs of the individual mines for the past six months have been:—

	Oct. Ozs.	Nov. Ozs.	Dec. Ozs.	Jan. Ozs.	Feb. Ozs.	Mar. Ozs.
Ooregum	6,036	6,045	6,207	6,180	6,170	6,057
Mysore	5,699	6,029	6,123	6,349	10,145†	8,934
Champion Reef	6,204	6,228	6,237	6,291	6,304	6,513
Nundydroog...	3,295	3,315	3,321	3,323	3,781‡	3,550
Nine Reefs ...	—	—	110	—	—	—
Mysore Reefs	116	222	116	179	153	114
Mysore W. and Wynaad ...	951	706	538	—	654	—
Balaghat Mysore ...	—	—	—	120	211	312
Total	22,301	22,545	22,652	22,442	27,508	25,470

† Of this 2850 ounces are the January balance.
‡ 250 ounces from the previous clean up are being forwarded.

WEST RAND MINES (LIMITED).

An extraordinary general meeting of the West Rand Mines (Limited) was held at Bettelheim buildings, Johannesburg, on Tuesday, March 10, for the purpose of considering and adopting entirely new Articles of Association in place of those existing. Mr. Julius Berlein took the chair, and 228,636 shares were represented out of 400,000.—The Chairman said they had heard from the notice read that the object of the meeting was to secure a new trust deed. From very small beginnings the company had gone on increasing its operations, and the directors found that it was necessary to have a new trust deed to suit their altered circumstances. Their trust deed had already had to be amended, and five or six additions had to be made to it. As evidence that the shareholders were of the same opinion as the directors, there was the fact that the holders of 228,636 shares had declared in favour of the change, and he believed that all the shareholders were in favour of the new Articles of Association which had been lying at the offices of the company for inspection.—The resolution submitted was adopted,

WANTED.

*** Prepaid Advertisements are inserted in this column at the rate of 8d. per line, with a minimum charge of 4s.

ARSENICAL ORES AND MATERIAL.

SELLERS are INVITED to COMMUNICATE with W. BEVAN & Co., Arsenic Manufacturers, Swansea.

CYANIDE PROCESS.

WANTED, a COMPETENT MAN, thoroughly acquainted with the Practical Working of the Cyanide and Chlorination Process.

Apply to GRUNING and Co., Liverpool.

A MINING ENGINEER, thoroughly practised in Modern Methods, SEEKS EMPLOYMENT. Preferably permanently abroad, but will accept temporary work.

Apply, "GOLD," care of MINING JOURNAL Office, 18, Finch Lane, London, E.C.

WANTED, a SITUATION as GENERAL MANAGER of MINES and WORKS. Has large practical experience in Metalliferous Mining, Tin, Copper, Lead, Iron, and other Minerals Upwards 20 years with last company. First-class testimonials can be produced.

Address, Captain WILLIAMS, M.E., Ballymena, County Antrim, Ireland.

ANALYSTS and MINERALOGISTS, located in Lead, Zinc, Copper, and Silver Mining Districts, in any part of the world, whence ore is or might be shipped to Europe, are INVITED to communicate details and to send their CHARGES for Sampling, Assaying, &c., to "LONDON ORE BROKERS," care of MINING JOURNAL Office, 18, Finch Lane, London, E.C. Good testimonials and references indispensable. Year's buying 150,000 tons.

PRACTICAL MINER WANTED for Gold Mine on West Coast of Africa. Must be thoroughly experienced, of strictly sober habits, and not over 30 years of age.

Apply, stating experience and salary required, to "MINER," 11, Queen Victoria Street, London, E.C.

REDUCTION OFFICER REQUIRED for Gold Mining Property in South America. Knowledge of Spanish desirable.

Apply, with testimonials, "L.," 11, Old Broad Street, E.C.

WANTED, for the Transvaal, a FIRST-CLASS MINING ENGINEER as EXPERT and CONSULTING ENGINEER to a Trust and Finance Company. Long experience in gold mining in all its branches and highest testimonials indispensable.

Write particulars and terms to "C. M. E.," care of J. W. VICKERS, 5, Nicholas Lane, E.C.

WANTED, a MANAGER for a MAIN REEF PROPERTY on the Randt, of sufficient experience to TAKE CHARGE of mining operations, battery, and cyanide works. First class references and long experience indispensable.

Address "X.X.X.," care of J. W. VICKERS, 5, Nicholas Lane, E.C.

A RENOWNED FIRM OF WHOLESALE DEALERS in Central Germany, having a large and good connection, wishes to

UNDERTAKE THE SALE OF AN ENTIRE

THOMAS FLOUR PRODUCTION,

NOW OR LATER ON FOR ALL GERMANY.

Success insured by personal friendly relations with the buyers.

Address, "T. R.," 474, care of

HAASENSTEIN AND VOGLER, A. G.,
Magdeburg.

FOR SALE.

*** Prepaid Advertisements are inserted in this column at the rate of 8d. per line with a minimum charge of 4s.

FOR SALE, TWIN RELIANCE AIR COMPRESSOR, by Hathorn and Co., London; Steel Receiver for same; all in first-class condition; 2 large BOILERS, recently overhauled. Full particulars and prices on application.

Apply, TAVY IRON AND ENGINEERING WORKS (Limited), Tavistock.

N.B.—Estimates furnished for all kinds of Mining Machinery, both New and Second-hand.

TO BE SOLD, BY PRIVATE TREATY, WEST TRELOGAN LEAD MINE, Flintshire.

Particulars from Mr. PIERCE, Trelogan Hall, Holywell, on the Mine, or R. EVANS, Secretary, Slate Works, Rhyl.

FOR SALE.—Two New AIR COMPRESSORS, 16 inches diameter by 28 inches stroke. To be driven from existing motive power.

Also Two of 30 inch CRUSHING MILLS, and various second-hand LEAD MINING MACHINERY and WATER WHEELS.

Makers of all descriptions of Lead and Blende Ore Dressing Machinery, and Water Wheels and Gearing.

Machinery supplied to all parts of the World.

Estimates furnished on application to E. THOMAS, Railway Engineering Works, Llanidloes, North Wales.

HEMATITE IRON ORE.

PROVED DEPOSITS of rich HEMATITE IRON, near the sea coast, in an EXCEPTIONALLY GOOD POSITION for WORKING CHEAPLY.

For particulars, address "FERRUM," MINING JOURNAL Office, 18, Finch Lane, London, E.C.

SALE BY AUCTION.

*** Advertisements are inserted in this column at the rate of 8d. per line with a minimum charge of 4s.

CARDIGANSHIRE, SOUTH WALES.

CWMERFIN MINE.

MESSRS. DANIEL, SON, and MEREDITH have received instructions TO SELL BY PUBLIC AUCTION, at their Sale Rooms, Queen's Road, Aberystwyth,

On FRIDAY, May 8th, 1896,

at 2·30 o'clock in the afternoon,

The valuable LEAD and BLENDE MINE, known as "CWMERFIN MINE," situate in the Parish of Llanbabarnfawr, in the County of Cardigan, held on lease for an unexpired term of 16½ years, together with the MACHINERY and PLANT thereon, now a going concern.

The Mine is situate about 4½ miles from Bow Street Station on the Cambrian Railway, and about 7 miles from Aberystwyth.

Particulars and Conditions of Sale may be obtained of Messrs. ROSE-INNES, SON, and CHICK, Solicitors, Billiter Square Buildings, London, E.C.; of W. HUGHES-JONES, Esq., Solicitor, Aberystwyth and of the AUCTIONEERS, Queen's Road, Aberystwyth.

PUBLICATIONS.

*** Prepaid Advertisements are inserted in this column at the rate of 8d. per line, with a minimum charge of 4s.

WORKS on MINING, METALLURGY, and ALLIED SUBJECTS.

A Hand-Book of Gold Milling. By HENRY LOUIS, A.R.S.M., F.G.S., &c. Crown 8vo., 10s. net.

The Golden Quartz Reefs of Australia. By WILLIAM NICHOLAS, F.G.S., with Illustrations. A series of Articles especially relating to the Bendigo Gold Field, Victoria. 2s., Post Free.

A New Guide to the Iron Trade, or Mill Managers' and Stock Takers' Assistant. By JAMES ROSE, of Batman's Hill Iron-Works. Second Edition. Comprising a Series of New and Comprehensive Tables, practically arranged to show at one view the Weight of Iron required to produce Boiler Plates, Sheet Iron, and Flat, Square, and Round Bars, as well as Hoop or Strip Iron of any dimensions, to which is added a variety of Tables for the convenience of Merchants, including a Russian Table. 5s. 6d.

The Colliery Ready-Reckoner and Wages Calculator. By JAMES IRELAND. 1s. 6d., Post Free.

Tacknote: a Form of Licence to Explore and Search for Mines, Minerals, &c. 1s., Post Free.

Notes on the Philippine Islands: A Pamphlet Reprint. By FRANK KARUTH, F.R.G.S. 6d.

History of the Holmbush, Redmoor, and Kelly Bray Mines; with Several Sections of the Workings. By W. F. WILKINSON, 1s.

The Law of Merchandise Marks. By FRANK SAFFORD, Recorder of Canterbury, and a Member of the London Chamber of Commerce. 7s. 6d.

LONDON:

THE MINING JOURNAL,
18, FINCH LANE, E.C., and
3, DORSET BUILDINGS, SALISBURY SQUARE, E.C.

THE LIXIVIATION OF SILVER ORES
WITH
HYPOSULPHITE SOLUTIONS.
By C. A. STETEFELDT.

SECOND EDITION. COMPLETELY REVISED.

With Two Plates showing Construction of a LIXIVIATION PLANT. Published and Sold in the United States and Mexico by the Author 967, ALICE STREET, OAKLAND, CALIFORNIA.

Price, bound in Cloth, $5.

For all other countries the Sale is conducted by
CRAZ and GERLACH (Joh. Stettner), Freiberg in Sachsen, Germany.
Price 20s. net.

THE GLASGOW HERALD
(ESTABLISHED 1782)
IS THE
LARGEST & LEADING ADVERTISING MEDIUM
OUT OF LONDON.

It is next to *The Times* and *The Daily Telegraph*, each of which it exceeds in extent of Advertising during several months of the year. It is unrivalled among Daily Papers for the completeness of its Reports of the Mining and Metal Markets, besides Commercial and General News for all classes of the community.

HEAD OFFICES: 65-69, BUCHANAN STREET, GLASGOW.
LONDON OFFICES: 65, FLEET STREET.

NORTH QUEENSLAND REGISTER.
THE LEADING NORTH QUEENSLAND WEEKLY.
PUBLISHED AT CHARTERS TOWERS, NORTH QUEENSLAND.
MINING A SPECIALITY.

Subscription £1 4s. per annum; including postage to Great Britain £1 5s. per annum.

Address communications to—
THE NORTHERN MINER PRINTING AND PUBLISHING COMPANY
CHARTERS TOWERS, QUEENSLAND.

The COUNTY GENTLEMAN'S PAPER for Cheshire, Shropshire, and North Wales is

THE CHESTER COURANT.
(ESTABLISHED 1730.)

The CHESTER COURANT goes into all the best houses and has a Subscription List of remarkable scope and character.

It is a most suitable medium for advertising Patent Machinery used on large Farms or County Estates

SHIPPING.

CASTLE LINE.—CAPE & NATAL MAILS.

WEEKLY SERVICE FOR THE GOLD FIELDS OF SOUTH AFRICA.—The CASTLE COMPANY'S STEAMERS leave LONDON (East India Dock Basin, Blackwall) every FRIDAY, and sail from SOUTHAMPTON every SATURDAY.

Steamers.	London.	Southampton.
Hawarden Castle (via Madeira) ...	April 17	April 18
†Pembroke Castle (via Canaries and St. Helena)	April 24	April 25
Tantallon Castle (via Madeira) ...	May 1	May 2
Warwick Castle (via Canaries) ...	May 8	May 9

† Also for Madagascar and Mauritius.

Return tickets to all Ports.

Free Tickets by Castle Express from Waterloo to Southampton.

Apply to DONALD CURRIE and Co., 3, Fenchurch Street London, E.C.

West End Agency, THOS. COOK AND SON, 13, Cockspur Street.

UNION LINE.

FOR SOUTH AFRICAN GOLD FIELDS.—WEEKLY SERVICE.—CAPE OF GOOD HOPE, NATAL, and EAST AFRICAN ROYAL MAIL STEAMERS.—The UNION STEAMSHIP COMPANY'S ROYAL MAIL and INTERMEDIATE STEAMERS will Sail as follows for SOUTH and EAST AFRICA, calling at MADEIRA and TENERIFFE.

Steamers.	Antwerp.	Rotterdam.	Hamburg.	Southampton.
Gaul (twin scr w)	—	April 7	April 11	April 18
†Moor (twin sc'w)	—	—	—	April 25
Spartan	April 21	—	April 25	May 2
†Athenian	—	—	—	May 9

† Calling at Madeira. ‖ Via Teneriffe.

Free railway tickets from London and Plymouth to Southampton.

Cheap Tickets are issued for Passengers' Friends.

The Union Line Express is despatched from Waterloo Station (Main Line Platform) every Saturday.

RETURN TICKETS ISSUED.

Apply to the UNION STEAMSHIP COMPANY (Limited), Canute Road, Southampton; 14, Cockspur Street, London, S.W.; and South African House, 94 to 96, Bishopsgate Street Within, London, E.C.

BUSINESS CARDS.

AERIAL ROPEWAYS.
OTTO SYSTEM.

R. E. COMMANS (late Commans and Co.), 6, Queen Street Place, London, E.C.

ASBESTOS.

THE UNITED ASBESTOS COMPANY (Limited), Dock House, Billiter Street, London, E.C. Asbestos Goods of the highest quality.

AUSTRALIAN MINERALS.

COLLECTIONS of AUSTRALIAN MINERALS for Show Case, or for technical purposes supplied to order. Price from £2 2s. upwards On receipt of order with remittance a collection will be made up and dispatched without delay.

MINES REPORTED ON.

J. B. AUSTIN, Mineralogist, Adelaide, S.A.

EXPLOSIVES FOR MINING.

NOBEL'S EXPLOSIVES COMPANY (Limited). Glasgow. Manufacturers of Gelignite, Gelatine-Dynamite Dynamite, Detonators, Electric Detonator Fuses, &c., &c.

MAGNETIC ORE SEPARATORS
(KING'S PATENT.)

FOR SEPARATING IRON ORE FROM OTHER MINERALS.

Apply, FREDK. J. KING, 96, Leadenhall Street, London.

METAL PERFORATORS, &c.
J. & F. POOL,
METAL PERFORATORS & WIRE WEAVERS.
COPPERHOUSE, HAYLE, CORNWALL.

SPECIALITIES:—All descriptions of Perforated Metal Plates Stamps' Battery-Screens, Wire Gauze and Sieves for Foreign and Home Mining, and other Purposes. Export orders carefully and promptly executed.

MINING ENGINEER.

F. M. KRAUSE, F.G.S., F.L.S., (formerly of the Geological Survey of Victoria, late Professor of Geology and Mining at the School of Mines, Ballarat), Examines and Reports upon Mines and Mineral Lands. May be consulted by Shareholders and intending Investors in Australian Mining Properties.

18, Temple Court,
Collins' Street, Melbourne,
Victoria, Australia.

MINING INSTRUMENTS.

JOHN DAVIS & SON, All Saint's Works, Derby; and 118, Newgate Street, London. Mathematical instruments and miner's safety lamps.

MINING MACHINERY.

FRASER & CHALMERS (Limited), 43, Threadneedle Street, London, E.C. Mining machinery of the most approved design.

ROBEY & CO. (LIMITED), Manufacturers of Steam Engines, Mining Machinery, &c. Makers of the Robey Patent Automatic Expansion Gear.—Globe Works, Lincoln.

GATES IRON WORKS, 73A, Queen Victoria Street, E.C. The Gates Rock and Ore Breaker effects a great saving in power.

ORE DRESSING MACHINERY.
THE LÜHRIG COAL AND ORE DRESSING APPLIANCES (LIMITED),
32, VICTORIA STREET, LONDON, S.W.

COMPLETE DRESSING PLANTS for Gold, Silver, Lead, and Copper Ores, &c., designed and erected.

LÜHRIG SINGLE AND COMPOUND VANNERS for Low Grade Ores and Tailings.

IMPROVED BREAKERS, ROLLS, JIGS, AND SEPARATING DRUMS.

Tests made with Samples at London Works Free of Charge.

ORE REDUCTION.

THE CLARKSON-STANFIELD ORE REDUCTION COMPANY (Limited). Process for the treatment of gold, silver, copper, lead, and other ores. Address, 6, Colonial Avenue, Minories, London, E.

ROCK DRILLS.

RICHARD SCHRAM & CO., 17A, Great George Street, Westminster, S.W.

SAFETY FUSE MANUFACTURERS.

THE UNITY SAFETY FUSE CO., Scorrier, Cornwall, Manufacturers of all kinds of Safety Fuse for use in Mining, Quarrying, Submarine, and other Blasting Operations.

STONEBREAKING MACHINERY.

W. H. BAXTER, Engineer, Leeds. Stone-breaking and Ore-crushing Machinery. All highest awards received for 12 years. Guaranteed for economy in power, efficiency and durability over all others. Catalogues free.

TUBE MAKER.

GEO. J. CHATTERTON, manufacturer of lead pipe, block tin pipe, and tinned composition gas tube, Caledonian Road, London, N

TURBINES

G. GILKES and CO., Kendal Makers of The Vortex Turbine.

EL MINERO MEXICANO.
The Mining and Industrial Journal of Mexico,
ESTABLISHED 1873.

Published in the City of Mexico every THURSDAY, in the Spanish Language.

Taken by Mine Owners, Capitalists, Manufacturers, Merchants, the richest and most liberal people, all over Mexico.

THE BEST ADVERTISING MEDIUM.

MEXICAN PATENT & TRADE MARK AGENCY,
A, Independencia No. 1, City of Mexico.
RICHARD E. CHISM, M.E., Editor and Proprietor.

MACARTHUR-FORREST PROCESS.

TO MINE OWNERS AND OTHERS

Having REFRACTORY GOLD ORES hitherto untreatable at a profit, the MACARTHUR-FORREST (PATENT) PROCESS OF GOLD EXTRACTION offers a solution of the difficulty.

The chief features of this Process are:—

SIMPLICITY, ECONOMY IN WORKING, and SMALL COST of PLANT.

PROPRIETORS:—

The Cassel Gold Extracting Co. (Ltd.)

Head Office—108a, Hope Street, Glasgow.

London Office—23, College Hill, Cannon Street, E.C.

Africa—The African Gold Recovery Co. (Ltd.), Johannesburg.

Australia—The Australian Gold Recovery Co. (Ltd.), 8, Post Office Chambers, Sydney, N.S.W., Charters Towers, Queensland, and Mr. Geo. S. Fowler, J.P., Adelaide.

United States—The Gold and Silver Extraction Co. of America (Ltd.), Denver, Colo.

Mexico—The Mexican Gold and Silver Recovery Co. (Ltd.), 2a, Calle de Providencia, No. 7, Mexico City, Mexico.

Chili—Mr. J. A. W. Murdoch, Calle Almendro, Valparaiso.

New Zealand—The Cassel Gold Extracting Co. (Ltd.), 6, Herald Buildings, Queen Street, Auckland.

Canada—Mr. W. Pellew Harvey, F.C.S., 717 and 719, Pender Street, Vancouver City, British Columbia.

The CASSEL GOLD EXTRACTING Co. (Ltd.) are manufacturers of CYANIDE, suitable for the MacArthur-Forrest Process.

For terms, apply at Head Office of the Company,
108a, Hope Street, GLASGOW.

DELTA METAL

FOR ALL ENGINEERING WORK.

STRONGER AND MORE DURABLE THAN STEEL.

Specially Adapted for MINING WORK

on account of its very high Resistance to Corrosion.

DELTA

CAST, FORGED, STAMPED, ROLLED, DRAWN.

For full Particulars and Prices apply to

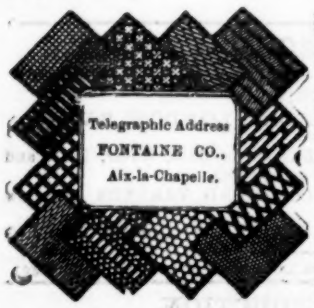
THE DELTA METAL COMPANY (Ltd.).
110, Cannon Street, London, E.C.

Telegrams:—"DELTA," London. Telephone No. 11292.

FONTAINE CO.,

PERFORATING WORKS, AIX-LA-CHAPELLE, GERMANY.

(ESTABLISHED 1857.)



PERFORATED PLATES FOR

Sieving and Sorting purposes, round, square, and taper holes.
Separation and Cleaning of Grain.
Drying Hops, Tobacco, Chicory, Bones, Manures.
Breweries, Chemical Works, Cement Works, Corn Mills, &c.
Specialities for Sugar Manufactories Refineries.
Copper Sheets perforated with our elongated Conical Holes. Filterpress Plates., &c.

We produce our Perforated Sheets by very powerful machinery, perforating at one stroke the whole breadth of the sheet; we can, therefore, supply irreproachable Wares at very Low Prices. We also furnish all Machinery and Tools of every description for Perforating Works.

PRICES ON APPLICATION.

BREAKFAST—SUPPER.

EPPS'S

GRATEFUL—COMFORTING.

COCOA

BOILING WATER OR MILK.

THE ADELAIDE OBSERVER.

Mining men and others in all parts of the world, who wish to secure the most complete budget of Australian news, and particularly of Mining Intelligence, will do well to have THE ADELAIDE OBSERVER regularly posted to them.

Special attention is given to Mining operations in Western Australia as well as in all other parts of Australasia.

THE ADELAIDE OBSERVER, Price Sixpence. Posted abroad, 7s. 6d. per quarter, or £1 10s. per annum.

HEAD OFFICE—GRENFELL STREET, ADELAIDE, SOUTH AAUSTRALIA.
LONDON OFFICE—80, FLEET STREET.

THE OBSERVER is a splendid medium for Advertisements of Mining Machinery and requisites.

Advertisements received by all the principal London Agents or at the London address, given above.

THE MONTAN ZEITUNG

For Austria, Hungary, and the Balkan States, Graz (Austria), has the largest circulation of any technical paper on the Continent, and

IS THE BEST MEDIUM

to advertise English Machinery and Appliances for

MINING, MANUFACTURING, AND ALL INDUSTRIAL PURPOSES

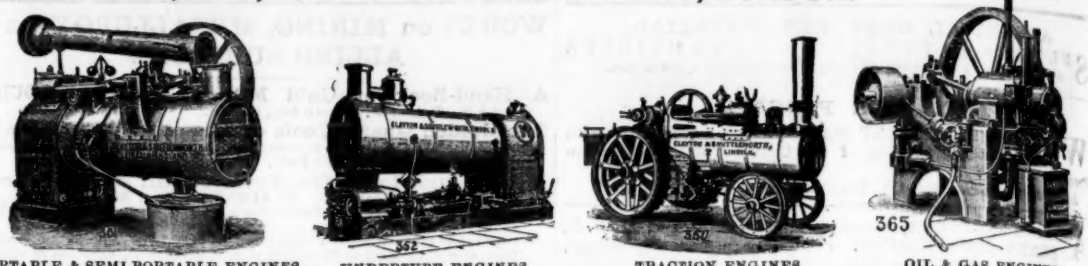
throughout Austria, Hungary, Servia, Bulgaria, Roumania, Turkey Montenegro, &c.

For general information and scale of Advertisements, apply to

F. MANSFIELD and CO.,
2, Lion Chambers, BRISTOL.

CLAYTON and SHUTTLEWORTH,

LINCOLN, & 95, QUEEN VICTORIA STREET, LONDON.



PORTABLE & SEMI-PORTABLE ENGINES. UNDERTYPE ENGINES. TRACTION ENGINES. OIL & GAS ENGINES.

ALSO FIXED ENGINES, CORNISH BOILERS, THRASHING MACHINES, STRAW ELEVATORS, CHAFF CUTTERS, MAIZE SHELLERS, GRINDING MILLS, SAW BENCHES, CENTRIFUGAL PUMPS, &c.

UPWARDS or *59,000 ENGINES* and *THRASHING MACHINES* **MADE and SOLD.**

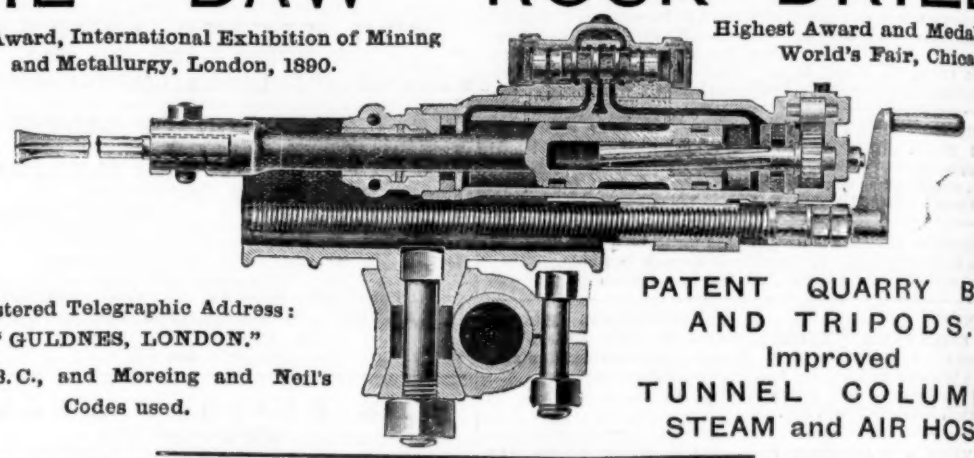
CATALOGUES FREE by POST to any PART of the WORLD.

☞ Owing to increased facilities CLAYTON and SHUTTLEWORTH can now execute orders at short notice.

THE "DAW" ROCK DRILL.

Highest Award, International Exhibition of Mining and Metallurgy, London, 1890.

Highest Award and Medal, World's Fair, Chicago.



Registered Telegraphic Address:
"GULDNES, LONDON."
A1, A.B.C., and Moreing and Neil's Codes used.

PATENT QUARRY BARS AND TRIPODS.
Improved
TUNNEL COLUMNS.
STEAM and AIR HOSE.

Estimates for ROCK BORING and GENERAL MINING MACHINERY on Application.

PATENTEES AND MANUFACTURERS:

A. & Z. DAW, II, QUEEN VICTORIA STREET, LONDON, E.C.

ALSO SOLE MAKERS OF

THE "DAW" AIR COMPRESSING ENGINES.

CONTRACTS for all KINDS of ROCK DRILLING UNDERTAKEN.

RAILWAY ACCIDENT ASSURANCE.

£1000 TICKETS NOW ISSUED AT
ALL STATIONS FOR ALL CLASSES.

GENERAL ACCIDENTS. EMPLOYERS' LIABILITY.

RAILWAY PASSENGERS' ASSURANCE COMPANY,

64, CORNHILL, LONDON. A. VIAN, Secretary.

NEGRETTI AND ZAMBRA'S,

SURVEYING & MINING INSTRUMENTS.

Theodolites, Levels, Circumferenters, Miners' Dials, Compasses, Drawing Instruments, Levelling Staves, Barometers, Thermometers, Air Meters, Binoculars, Telescopes, &c., &c.

ILLUSTRATED PRICE LISTS AND ESTIMATES POST FREE TO ALL PARTS OF THE WORLD.

NEGRETTI & ZAMBRA,

Scientific Instrument Makers to Her Majesty the Queen and British and Foreign Governments.

38, HOLBORN VIADUCT.

BRANCHES: 45, Cornhill, and 122 Regent Street, London

IMPROVED

Winding Indicators

WITH
INDICATING SIGNAL BELL
COMBINED,
As shown in Illustration.
Or either of the two separately as required.

Made to suit any Winding Engine or for hauling purposes; with Bell, to denote when to cut off steam; which can be altered in a few minutes to ring at any part required.

PRICES AND PARTICULARS—

Parkin,

LIVERSEDGE, YORKS.

Watch this Advertisement every other week.

SOLE AGENTS FOR SCOTLAND:
Messrs. ARCHD. BAIRD & SON,
59-61, Waterloo Street, Glasgow.

Export Agent:—Mr. STEPHEN HUMBLE, Junr.
Emerson Street, Southwark, S.E.

EVERY VARIETY OF
PUMPING MACHINERY

95000 PUMPS SOLD

BLAKE & KNOWLES LD
17 QUEEN VICTORIA ST LONDON

200000 PUMPS IN MINES

MINING PUMPS of the BEST TYPE, A SPECIALITY.

EDITORIAL AND ADVERTISEMENT OFFICES:—18, FINCH LANE E.C.
Printed for the Registered Proprietors by JOHN ROBERT GALE, at their Printing Offices 1, DORSET BUILDINGS, SALISBURY SQUARE, in the Parish of St. Bride's, in the City of London.—*April* 11, 1896.